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What a diverse bunch we are!



**On the cover:** A geared-steam Climax works a log camp on Sam Foster's On30 Owl Cove Lumber Co. layout.  
Lou Sassi photo



## Next issue

In **September**, get a first look at the "Magic of Scale Model Railroading" museum exhibit. Plus, see a huge club layout, build a hay wagon, weather a Turboliner, and more!

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## Building a T-Trak module: Installing signs and poles

**David Popp's scenery work** is whittling down to assembling and placing various road signs and line poles on his N scale (1:160) T-Trak module. Watch as he prepares and installs road signs, telephone poles, fences, and people.

Progress is moving closer to completion and the layout is coming to life. Scan the QR code above with a smart-phone to catch up with all of David's efforts and helpful insights throughout the entire T-Trak series, exclusively on Trains.com Video!



## Built by Others: George Giacono's Belvedere & Delaware layout

**David Popp's Naugatuck Valley RR** has appeared in multiple issues of *Model Railroader* as well as the book *Building a Model Railroad: Step by Step, Second Edition*.

George Giacono took inspiration from this layout in the creation of his Belvedere & Delaware layout. George used the track plan from the April 2006 issue of MR as a starting point but instead chose to model the Pennsylvania RR circa fall of 1955. See how he did it in the latest edition of Built by Others on Trains.com.



## Seven things not to miss when cleaning a model railroad

**There's more to cleaning** a model railroad than just polishing the track and wheels. These seven trouble spots might not be obvious, but forgetting to clean them can really detract from the realistic appearance we strive so hard to reproduce on our layouts.



## Spaces to Places V: Highway construction, part 5

**Catch up with** Gerry Leone's off-camera preliminary efforts, before following his technique for making authentic roads and streets using medium-grit sandpaper. This follows previous uses of this technique in the Trains.com video series Spaces to Places IV.



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# Putting the model into *Model Railroader*

**Model railroading** is a unique hobby in that it encompasses many disciplines. Unlike plastic model kit building (if that's your thing, too, please check out the great work at *FineScale Modeler*), at some point you're going to want to build a layout.

A layout can be a few square feet on a shelf or module, or it can cover more area than the average American home. Check out a local club, or our upcoming feature on the La Mesa Club's Tehachapi Subdivision next month.

It takes many skills to build a layout, and we feature how-to stories on all of them. But the thing the layout is designed to support is the models we build. Whether they be locomotives, rolling stock, structures, or landscaped scenes, modeling is at the heart of what we do.

As we begin to wrap up our inaugural Hall of Fame

nominations, you'll notice many of the folks included are modelers. Making realistic miniature depictions of the scenes and equipment of the railroad industry is what got many of us hooked.

The pages of *Model Railroader* have featured great modelers from the very beginning. Folks such as Jack Work, John Allen, E.L. Moore, Art Curran, Linn Westcott, and Gordy Odegard helped develop many of the techniques we still use today. Working with brass and basswood is just as viable now as it was 70 years ago. Even plastic now has a long history as a modeling material, despite naysayers of the 1950s opining that styrene couldn't be used to build "real" models.

As the skill sets of modelers have changed, so have the materials. The 1960s and '70s saw the introduction of resin casting, which is now a legacy

method for making short-run model kits. Photo-etched metal parts grew in popularity through the 1980s and '90s. Now we're into 3-D printing as a solidly established method of model building.

Each material has its pros and cons, and creative modelers find ways to make the best of all options to continue to produce excellent models of which hall-of-famers would be proud.

In this issue, we feature the work of familiar and perhaps less familiar craftspeople. Jack Burgess shares tips for building maintenance-of-way equipment, but he also talks about how he used a mix of materials and methods to get the results he was after. Harvey Simon lets 3-D printing do the heavy lifting on his structure project. Layout builder Sam Foster shares a source for useful tools for the modeler.



We're always looking for excellent modeling how-to stories. If you have favorite methods you'd like to share, please reach out to us!

**You may have heard** that Kalmbach Media has sold MR and several other titles to Firecrown Media. Check out page 11 to learn more from our new CEO, Craig Fuller.

## Model Railroader

Model railroading is fun!

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**We welcome** contributions from readers, including articles, photographs, and drawings. For more information on submitting material, e-mail Editor Eric White at [eric.white@firecrown.com](mailto:eric.white@firecrown.com). Model Railroader assumes no responsibility for the safe return of unsolicited material. We assume unsolicited material is intended for publication by Firecrown Media unless otherwise noted. We assume letters, questions, news releases, and club news items are contributed gratis.

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Actual HO scale model photographed



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## Railway Post Office

Conducted by Steven Otte



When an accident left a hole in the scenery on the Bunker Hill (W.Va.) Train Club's layout, club member Duff Means filled the gap with a bicycle trail, inspired by an MR April Fool's article. Duff Means photo

## A good idea from an April fool

**An ugly incident** left a nasty hole on the Bunker Hill (W.Va.) Train Club's layout. What was particularly bothersome to me was that this section was one of the first things visitors would see. After some thought, I remembered an April issue of *Model Railroader* that showed a diorama built by one Nomar Tyson-Rales ("Say hello to NOtrak," MR News, April 2002).

I thought that a scene such as this, featuring a railroad right-of-way that had been converted to a bike trail, was precisely what could replace the damaged part of the layout. The club members seem to like it.

Duff Means

## Another fan of less is more

**Your reader Bill Dillon** of Fincastle, Va., is spot on (Railway Post Office, June). Big layouts are "hard to relate to." Home ownership struggles will lead to apartment- or condo-sized roads dominating.

I wager "small" is not what most people think when they hear the term "model railroad." A rebrand of the hobby along the lines of "Railroad Diorama Modeling" is the way to go.

Each time a small railroad appears in the pages of MR, I'm inspired by its simplicity and creativity. A massive layout is too big, too brain-numbing, and too hard to build. For me, small is more fun!

Mark Rees, Toronto, Ont.

## Useful information

I'd like to thank *Model Railroader* for the "Diesel Locomotives by Generation" article in the April 2024 edition.

My Quail Valley RR is a freelanced railroad based in Southern California in the late 1960s and early 1970s. It's small, but I have a lot of diesels — a great mix of General Electric and Electro-Motive Division units, along with an Alco PA/PB set.

It was nice to read that article and see that all of my motive power actually fits in my era. Now I no longer wonder "Gee, does that locomotive belong on my layout?" Now I know that they do.

Anton R. Bruce Sr. **MR**

Comments, suggestions, and additional information on *Model Railroader* articles and departments are welcome in this column. Every comment will be read, but not all can be printed or answered. Make your statement in 300 words or less, and send it to **Railway Post Office, Model Railroader magazine, P.O. Box 1612, Waukesha, WI 53187**, or e-mail [editor@modelrailroader.com](mailto:editor@modelrailroader.com). Please include your name, city, and state.



# Welcome to Firecrown Media

By Craig Fuller

My company, **Firecrown Media**, has acquired Kalmbach's esteemed railroad magazines and media properties, including renowned titles such as *Model Railroader*, *Classic Trains*, *Trains*, *Garden Railways*, and *Classic Toy Trains*.

As the new custodians of these cherished and respected brands, we are committed to upholding their legacy and nurturing their growth.

Firecrown Media, a rapidly expanding media company, is dedicated to acquiring and stewarding magazine and digital media brands in the transportation sector. Our portfolio includes *Flying*, *Boating*, *Yachting*, and *FreightWaves*, among 50 other loved brands.

Firecrown Media is young; it has only been around for three years, but it is funded by a billion-dollar family office with a significant focus on media. After acquiring brands, we have invested over \$40 million in them.

As Firecrown's founder, I drive much of the passion and energy behind our media strategy.

I started in media in 2017 when I launched *FreightWaves*, a digital media company often called the "Bloomberg of freight." In just seven years, it has become the most prominent voice covering the freight industry, with deep news and analysis of the trucking, rail, air, and ocean container markets. *FreightWaves* is also one of the fastest-growing B2B media companies in the world.

While I am a digital native, I love print magazines. My love for print publications began when I was a boy; *Flying* was a magazine I grew up reading. So, when I had the opportunity to acquire it in 2021, I did. My purchase of *Flying* began as a passion project; after all, I am a private pilot.

My initial plan was to shutter the print magazine and focus on the digital edition. However, I remembered how I felt each month when I received my copy in the mail. Fully understanding and appreciating the power and love of print magazines, we soon realized that print magazines offered an experience for readers that digital couldn't match.

Unlike digital apps or websites, consuming print content provides the reader with an undistracted journey. When reading content online, one is constantly distracted by e-mails, Slack messages, and social media feeds.

None of that exists in print.

Print magazines offer the reader an experience and a journey unparalleled in any digital format. In recent years, we've seen younger generations (the "Zoomers") start to prefer print magazines over digital. For them, print magazines are innovative and tangible, providing a premium experience compared to digital offerings.



After our success with *Flying* (revenues up 5x since we acquired it in 2021), we expanded our portfolio through 20 acquisitions and rebranded as Firecrown Media.

Firecrown's playbook for the Kalmbach titles will follow our experience with other publications and digital assets we've acquired.

We will invest significantly in print magazines, creating coffee table-worthy magazines with gorgeous photography and stories that engage audiences. Print magazines should be timeless and something that readers want to keep.

In addition to creating beautiful print magazines, we will also make significant investments in the digital websites in our portfolio. This will include significant upgrades to *Trains.com* and all of the affiliated properties.

Rest assured, we plan to keep the forums, but our roadmap includes significant upgrades to ensure their stability and functionality with more modern aesthetics and experience.

We also have big plans for video products and plan to introduce new podcasts to serve and engage the community.

All of these investments will take time, but in a few months, you will start to see improvements in the online products, and over the next year, you will see a relaunch of the print versions.

You will also be glad to know that we are committed to the modeling community and the railroad brands we just acquired.

I am bullish on the future of modeling and its attractiveness for younger generations.

As a father of five children (ages 3 to 17), my wife and I spend much time and effort introducing our young children to hobbies that do not involve screens and devices. We want to find experiences that exist in the physical world.

Model railroading offers a four-dimensional experience that does exactly that. For example, I have a small Lionel layout that I have been building with my 5-year-old son.

It is an opportunity for the two of us to make something that is limited only by his imagination. Best of all, I can share my knowledge and love of the freight railroads with him as we develop and play with our evolving model railroad. As an entrepreneur, I love building things; he can help me participate in the journey.

I would love to hear your thoughts and ideas on improving the *Model Railroader*, *Trains*, *Classic Trains*, *Classic Toy Trains*, *Garden Railways*, and *Trains.com* experience.

You can find me on X: @freightalley.

## HO scale



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• **Electro-Motive Division SD70-series diesel locomotive.** SD70M: Lake State Ry., CSX, Norfolk Southern, and Union

Pacific. SD75M: Atchison, Topeka & Santa Fe and Burlington Northern Santa Fe Ry. SD75I: Canadian National and Ontario Northland. Four road numbers per scheme. All-new tooling. Prototype-specific headlight location, North American safety cab, brass Nathan K5 air horn, and molded drill starter points for grab irons (sold separately). Direct-current models feature pre-wired speakers. Direct-current model, \$169.98; with DCC and sound, \$229.98. Walther's Mainline. Wm. K. Walther's Inc. 414-527-0770, [walther's.com](http://walther's.com)



• **General Electric boxcab electric locomotive.** Painted black with yellow safety striping. Modeler-applied

handrails. Factory-installed details, including pantographs. Light-emitting diode directional headlights. Direct-current model. \$268. Dauphin Limited. [dauphin-mtp.myshopify.com](http://dauphin-mtp.myshopify.com)



• **General Electric C36-7 diesel locomotive.** Union Pacific, Burlington Northern, Conrail, Ferromex, Missouri Pacific, National Railways of Mexico, Norfolk & Western, and Norfolk Southern. One to four road numbers per scheme. Adirondack or Rockwell trucks as appropriate, full traction motor casing details, road-specific battery box doors on both sides, metal side handrails with plastic stanchions, and detailed cab interior with illuminated control stand gauges. Direct-current model, \$249.95; with ESU LokSound V5 sound decoder, \$359.95. Rapido Trains Inc., 905-474-3314, [rapidotrains.com](http://rapidotrains.com)



• **Siemens ALC-42 diesel locomotive.** Amtrak (Phase 7 scheme). Two road numbers. Light-emitting diode headlights, marker lights, number boxes, interior corridor work lights, and ditch lights. Station announcements, Keep-Alive capacitor, and TCS WOWSound decoder. \$495. Bachmann Trains, 215-533-1600, [bachmanntrains.com](http://bachmanntrains.com)

## New owners for American Model Builders

In the May 2024 issue we published news that American Model Builders (AMB, also known as Laser Kit), manufacturers of structures, rolling stock, and detail parts, among other items, had closed. Since then, we've learned two firms will be bringing items from the Laser Kit line back to market.

Lake Junction Models LLC of Webster Groves, Mo., will be producing the complete line of N and HO scale cabooses. Part numbers and pricing can be found online at [lakejunctionmodels.com](http://lakejunctionmodels.com).

Berkshire Valley Models of Fenton, Mo., will be manufacturing the AMB line of structure and detail parts. Visit [berkshirevalleymodels.com](http://berkshirevalleymodels.com) for updates.



## N scale



**Pullman-Standard passenger cars.** These colorful lightweight cars are the latest offerings from RailSmith Models. Atlantic Coast Line *Moultrie* (\$56) is based on a fluted-side diner delivered in 1950 and used on the *Florida Special*. Southern Pacific 10405 (\$58) is a smooth-side coffee shop-lounge delivered to the railroad in 1949. The full-size car was leased to Union Pacific and used on the *City of San Francisco* until 1955. The model has antenna and rooftop exhaust detail. The *Anson B. Jones* (\$57) is a fluted-side Railway Post Office car owned by the Missouri-Kansas-Texas and used on the *Texas Special*. The model, based on a 1947 prototype, has an etched-metal mail hook. All of the N scale models have metal wheel stubs mounted on plastic axles, truck-mounted plastic couplers, a detailed interior, and flush-fitting window glazing. RailSmith Models, [lowellsmith.net/railsmith](http://lowellsmith.net/railsmith)

## H0 scale rolling stock



- **American Car & Foundry 2-bay covered hopper kit.** Oglebay Norton, Ashgrove Cement, and Morton Salt. One road number per scheme. Plastic kit includes steel weight, plastic trucks and wheelsets, and Accumate couplers. Single car, \$21.98; three-pack, \$64.98. Accurail, 630-365-1173, [accurailinc.com](http://accurailinc.com)



- **Greenville 60-foot double-plug-door boxcar.** Nickel Plate Road; Detroit, Toledo & Ironton; Detroit & Toledo Short Line; Green Bay & Western; and New York Central. Multiple road numbers per scheme. Also available in five undecorated kits. Prototype-specific body style, roof, crossover platform, brake system, trucks, and more. Factory-applied metal stirrup steps, wire corner grab irons and uncoupling levers, and ladders. \$58.95. Tangent Scale Models, 828-412-3886, [tangentscalemodels.com](http://tangentscalemodels.com)
- **Greenville 73-foot wood-chip hopper.** Apalachicola Northern, Atlanta

& St. Andrews Bay, CSX, Louisville & Nashville, Norfolk Southern, Seaboard System, and Southern Ry. Multiple road numbers per scheme. Also available undecorated. Plastic and die-cast metal construction, 100-ton trucks with 36" turned metal wheels, and Proto-Max metal couplers. \$39.98. Walther's Mainline. Wm. K. Walther's Inc. 414-527-0770, [walther.com](http://walther.com)



- **Hawker Siddeley van.** Canadian National and Devco Ry. One to eight road numbers per scheme; also available undecorated. Detailed underbody with freestanding air and brake piping; operating marker lights, track light, step lights, cabin lights, and separately controlled cupola light; and Barber-Bettendorf caboose trucks with all-wheel pickup. \$129.95. Rapido Trains Inc., 905-474-3314, [rapidotrains.com](http://rapidotrains.com)



- **Pacific Car & Foundry R-40-2 wood refrigerator car.** Merchants Despatch Refrigerator Line; Chicago, Burlington & Quincy; Northern Pacific; Santa Fe Refrigerator Despatch; Southern Pacific;

## In Memoriam

**Dennis E. Storzek, 1951-2024**

**Dennis Storzek, 71,** passed away on April 21, 2024. Dennis became a model rail-roader in 1959 when he received a Lionel train set. He later scratchbuilt his first model, a flatcar. Dennis began volunteering at the Illinois Railway Museum the day he turned 18.



Dennis was a freight car hobbyist and made himself extremely knowledgeable in the field. In 1982 he started producing resin kits including high-end freight cars and Soo Line cabooses.

In late 1986, Dennis and Bob Walker (of Walker Model Service) merged their two small businesses to form Accurate Finishing, later changing its name to Accurail Inc.

Thanks to Dennis, the Accurail line grew to 44 different freight car types. He retired from the company in 2021.

Dennis is survived by Patti, his wife of 50 years, and daughters Coleen and Linda.

and Western Pacific. Six road numbers per scheme. Wire grab irons, solid-bearing trucks, and plastic semi-scale Type E couplers. \$31.99. Fox Valley Models line. Scale Trains, 844-987-2467, [scaletrains.com](http://scaletrains.com)



- **Pennsylvania RR G22 46-foot steel gondola.** Pennsylvania RR and Penn Central. Multiple road numbers per scheme. Die-cast metal chassis, K or AB brake systems as appropriate, 70- or 100-ton trucks with turned-metal wheels, full interior and exterior rivet detail, factory-installed and painted wire grab irons, and Rapido semi-scale metal couplers. Container load as appropriate. Single car, \$54.95; three-pack, \$164.85; six-pack, \$329.70. Rapido Trains Inc., 905-474-3314, [rapidotrains.com](http://rapidotrains.com)

*Continued on page 17*

# Broadway Limited N Reading Co. T-1 4-8-4



**An unusual steam locomotive**, born of wartime necessity, has joined Broadway Limited Imports' N scale lineup. The Reading Co. class T-1 4-8-4 Northern, converted from 2-8-0 Consolidation locomotives near the end of World War II, mostly handled fast freight, but also pulled passenger and coal trains.

In 1945, wartime restrictions kept Reading from buying new locomotives, but the railroad nonetheless found itself in need of a supercharged steam engine to pull fast freight. The answer was to rebuild existing engines. Reading Shops started with the boiler and firebox from the class I-10sa Consolidation, adding a new stretched frame, longer smokebox, and other components from Baldwin Locomotive Works.

Between 1945 and 1947, 30 class T-1s were built. Although they filled a vital need for the railroad, they didn't last long. All but four, retained for excursion duties, were retired by 1958. The "Iron Horse Rambles" excursions ended in 1964, and those remaining engines were sold in 1965. All four survive today.

**Our sample is numbered** 2101, the second T-1 to come out of Reading Shops. The model strongly resembles photos of the prototype and its siblings printed in several books from the David P. Morgan Memorial Library collection. Its black paint is smoothly applied, and the lettering is straight and opaque. The tiny lettering on the back of the tender is legible under magnification.

The model has wire grab irons, hand-rails, and uncoupling levers, as well as turned-brass boiler valves and bell. Other separate details are engineering plastic. The blackened metal valve gear and side rods were nicely done. There is a working smoke generator in the smoke-stack; I didn't test this feature.

The model's drivers were only 64 scale inches in diameter, compared to the prototype's 70-inch drivers. However, that's to be expected if a scale model is going to maintain a prototypical spacing between the drivers, as this one does.

The other dimensions I checked matched or came within a few scale inches of those on a builder's drawing published in *Steam Locomotives of the Reading and P&R Railroads* by Edward H. Wiswesser (Greenberg, 1988).

The locomotive has a recommended minimum curve radius of 9.75". Our sample had no trouble running forward or back on the 14" curves and No. 6 turnouts on our MR&T State Line Route project layout.

All the wheels on our sample model were in gauge, and the working knuckle couplers on both front and back were mounted at the correct height.

**The locomotive's Paragon4** DCC decoder is dual-mode, meaning the model will run under either direct current or DCC. I tested it first on DC.

This model's DC performance was better than most I've tested. A startup sound routine played when the voltage reached just over 8V. When the throttle reached 9V, the engine crept along the rails at a stately 3.4 scale mph. At our DC power pack's top voltage of 13V, the engine sped at 94 scale mph.

The locomotive delivered an even greater speed range under DCC control. Its speed at step 1 was too low for our test bench speedometer to detect — less than 0.1 scale mph. At speed step 28, it zipped along at 118 scale mph. This is faster than the prototype's speed limit of 70 mph, but within the engine's capabilities.

Finally, I plugged in our BLI Rolling Thunder unit. I enjoyed the deep throb

of the subwoofer with each chuff.

Speaking of sound, the decoders in the Christmas and Fourth of July fantasy schemes are loaded with special holiday-themed sound sets. The manufacturer's website has instructions on how to switch these to normal T-1 sound effects at [broadway-limited.com/pages/n-locomotive-instruction-manuals](http://broadway-limited.com/pages/n-locomotive-instruction-manuals).

**Broadway Limited** has made a model that runs as good as it looks. It sounds great, too, especially if you have a Rolling Thunder under your layout.

## Facts & features

**Price:** \$449.99

### Manufacturer

Broadway Limited Imports  
9 East Tower Circle  
Ormond Beach, FL 32174  
[broadway-limited.com](http://broadway-limited.com)

**Era:** 1945-1958 (excursion locomotives -1964)

**Paint schemes:** Reading Co. in-service scheme (3 road numbers), American Freedom Train, Blue Mountain & Reading, Chessie Steam Special, Christmas fantasy scheme, Conrail steam special fantasy scheme, Delaware & Hudson Centennial scheme (with smoke deflectors), Independence Day fantasy scheme, and Iron Horse Rambles excursion scheme (3 numbers). One road number per scheme unless noted. Also available painted but unlettered.

### Features

- Minimum radius: 9.75"
- Paragon4 dual-mode DCC sound decoder
- "Rolling Thunder" sound transmitter
- Smoke unit
- Weight: Engine only, 3.3 ounces; with tender, 5.8 ounces



# Rapido N scale short-barrel ore hopper

A **National Steel Car short-barrel** ore hopper is part of the growing N scale freight car lineup from Rapido Trains. The ready-to-run car has Barber S-2 100-ton trucks, 36" metal wheelsets, and etched-metal crossover platforms.

**The samples we received** are decorated as Canadian National 346029, from the railroad's 346000 through 346084 series, and Ontario Northland 6512, part of the carrier's 6500 through 6534 series. The 35-foot cars were built by National Steel Car in 1967.

The full-size short-barrel cars transported ore from mines in Dane and Temagami, Ont., to Dominion Foundries & Steel Co. in Hamilton, Ont. Cars from both railroads could be seen running together in unit trains operating between the mines and mill.

The tandem mines closed in 1990, and the ore hoppers were off the CN and ONT rosters by the mid-1990s. Some of the cars were given new leases on life. Canadian National converted some to scale test cars. Belt Ry. of Chicago converted 14 into ballast hoppers.

**The Rapido model** has an injection-molded plastic body. The top of the model features longitudinal roof hatches and four door stops. At the middle of the hatches are two masts with the tires picked in black paint. On prototype cars, the tires contacted scrolls on overhead bins at the ore mines. This, in turn, opened the hatch covers in preparation for loading.

The end platforms are engineering plastic pieces glued to the die-cast metal frame. The grab irons, handrails, stanchions, and stirrup steps are molded; the plastic uncoupling levers are freestanding. See-through, etched-metal crossover platforms run the width of the car on both ends.

The B end of the car has plastic brake appliances and detailed piping molded to match the body color. The brake wheel is a separate, factory applied part.

Similar to the HO version, the underbody of the N scale barrel ore hopper is made up of multiple parts. The sills, floor, and outlet gates are one die-cast

metal piece. The center sills, body bolsters, bolster blocks, and draft-gear boxes are a single plastic casting. The plastic draft-gear box covers are secured with Phillips-head screws.

**Both of our samples** have smooth, evenly applied paint with all but the tiniest lettering legible under magnification. The herald and data placement matches prototype images I found in books and online. The road name and herald on the ONT car was crooked, but that happens on full-size cars, too.

Drawings of the short-barrel ore hopper were published in the 1970 *Car and Locomotive Cyclopedia of American Practice* (Simmons-Boardman Publishing Corp.) The model closely follows published dimensions.

The Barber S-2 100-ton roller-bearing trucks are molded in black on the ONT car and Mineral Brown on the CN model. The body-mounted knuckle couplers are at the correct height, and the 36" metal wheelsets are properly gauged. The hopper weighs 0.8 ounce, which is correct per National Model Railroad Association Recommended Practice 20.1.

I put the two short-barrel cars in a freight train on Milwaukee, Racine & Troy State Line Route layout. The cars ran without issue while being pushed and pulled in a mainline freight and during yard switching.

**In addition to the short-barrel cars,** Rapido offers long-barrel cars decorated



for CN (Mineral Brown), ONT (Chevron scheme), The Andersons Inc. (black with RMGX reporting marks), GATX Capital (black with GACX marks), and GE Rail Services (black with NIHX marks). Though the short- and long-barrel ore hoppers started life in Canada, examples of the cars can be found throughout the North American rail system today. —  
*Cody Grivno, senior editor*

## Facts & features

**Price:** Single car, \$42.95; three-pack, \$128.85; six-pack, \$257.70

### Manufacturer

Rapido Trains  
500 Alden Rd., Unit 21  
Markham, Ontario, Canada  
L3R 5H5  
rapidotrains.com

**Era:** 1967 to mid-1990s

**Road names:** Canadian National (Mineral Brown and Scale Test Car) and Ontario Northland (Progressive Green). Also available undecorated.

### Features

- 36" metal wheelsets, correctly gauged
- Body-mounted plastic couplers, at correct height
- Minimum radius: 9¾"
- Weight: 0.8 ounce, correct per National Model Railroad Association (NMRA) Recommended Practice 20.1

# ScaleTrains HO Trinity refrigerator car



**ScaleTrains has added** a Trinity 82-foot, 7,883-cubic-foot capacity mechanical refrigerator car to its Rivet Counter line. The modern era car, offered with and without sound, features an injection-molded plastic body, die-cast metal Type E lower-shelf couplers, and prototype-specific details.

**The sample we received** is decorated as BNSF Ry. 793303, part of the railroad's 793000 through 793809 series. The prototype cars were built by Trinity Rail at its Oklahoma City plant under File 2829 between February 2001 and September 2002. The model has a late Thermo King refrigeration unit. ScaleTrains also offers reefers with Carrier and early Thermo King units.

**The contemporary freight car** has a one-piece body with many separate, factory-applied parts, including door rods, door tracks, ladders, stirrup steps, and jack pads.

Normally the A end of the car is less detailed, but that's not the case with this model. The fuel tank end cage has a separate plastic frame with wire grab irons. The access platform has a see-through photo-etched metal deck. Below the deck is a fuel tank with separately applied fillers and gauges.

Features on the B end of the car include the brake wheel, brake stand, and chain; a plastic tack board with a white frame and dark brown boards; and a photo-etched,

stainless steel see-through Morton crossover platform. Plastic ladders and a crossover railing round out the details on the brake end of the car.

Both ends of the car are fitted with freestanding plastic uncoupling levers and trainline hoses. The body-mounted couplers are painted a rusty brown color. Like other ScaleTrains offerings, the couplers don't have trip pins.

The car rides on American Steel Foundries 100-ton trucks with raised foundry data, truck-mounted brake beams, and Timken rotating bearing caps. The 36" machined metal wheelsets have a .110" wide tread.

Our sound-equipped sample has electrical pickups that rub against the backs of the wheels. The pickups affected the free-rolling qualities of the model.

**A track-powered capacitor circuit** is used to operate the sound system. A touch sensor, activated by placing three fingers above the door, turns the sounds on. At startup, a light-emitting diode control panel light on the refrigeration unit illuminates. Similar to the prototype, the sounds randomly turn on and off. A small push button on the bottom of the car is used to adjust the volume.

The BNSF car is painted white with multi-color graphics. All of the lettering is legible and follows prototype placement. The model dimensions closely follow elevation drawings in *BNSF Railway Freight Cars Volume One* by

Robert C. Del Grosso (Great Northern Pacific Publications, 2004).

I operated the car in a short train on our Wisconsin & Southern layout. Though the electrical pickups caused some minor drag, the reefer ran without issue while being pulled in a train and spotted at East Troy Cold Storage.

**The ScaleTrains HO Trinity** refrigerator car is a well-detailed model that accurately follows the lines of the prototype. The sound system and illuminated control light add to the cool factor of this contemporary freight car. — *Cody Grivno, senior editor*

## Facts & features

**Price:** Without sound, \$54.99; with sound, \$89.99

### Manufacturer

ScaleTrains  
4901 Old Tasso Rd. NE  
Cleveland, TN 37312  
scaletrains.com

**Era:** February 2001 to present

**Road name:** BNSF Ry. (Carrier and Thermo King [early and late] refrigeration unit). Eight road numbers each.

### Features

- 36" machined metal wheelsets, correctly gauged
- Die-cast metal semi-scale lower shelf Type E couplers, at correct height
- Weight: 6.4 ounces, correct per National Model Railroad Association (NMRA) Recommended Practice 20.1





Continued from page 13

## HO scale passenger equipment



- **Lightweight coach.** Amtrak, BC Rail, Canadian National, Canadian Pacific, Central Railroad of New Jersey, Delaware & Hudson, Erie-Lackawanna, Grand Trunk Western, Long Island Rail Road, Missouri Pacific, and VIA Rail Canada. Track-powered interior lighting with capacitor controlled by Rapido Lighter. Tighter connections between body and roof. Improved design and assembly to prevent warping. Redesigned trucks and new couplers. Detailed underbody and multi-color interior. \$119.95. Rapido Trains Inc., 905-474-3314, rapidotrains.com

## HO scale structures



- **SceneMaster laser-cut structure kits.** Fisherman's Shanty, \$19.98; elevated deer stand, \$9.98; forest cabin, \$21.98; and outhouse two-pack, \$11.98. Laser-cut wood kit. Complete, illustrated instructions included. Scene Master series. Wm. K. Walther's Inc. 414-527-0770, walther's.com

## HO scale vehicles



- **Drop-frame spread-axle chassis with 20-foot ISO tank container.** Green chassis with USAU or XCF container, Penn Intermodal Leasing chassis with Almar or Stolt container, and blue chassis with RMI or TAL container. Separate tank container and chassis. Chassis includes raised and lowered landing gear. Lift kit in lowered position installed, raised lift kit included in packaging. Two cargo lifting bag options. Bent wire landing gear hand crank.

## HO scale



**Electro-Motive Division SD9 diesel locomotive.** This Walther's Proto diesel is decorated for Duluth, Missabe & Iron Range; Chicago, Burlington & Quincy; Chicago & Illinois Midland; Great Northern; and Southern Pacific. The HO scale SD9 features road- and era-specific details, early Flexicoil sideframes with brake cylinders and piping, a detailed cab interior with factory-installed and painted crew figures, formed wire grab irons, etched metal lift rings, light-emitting diode headlights, a die-cast metal underframe, and Proto-Max metal couplers. Direct-current locomotives with a 21-pin plug sell for \$219.98. Versions with an ESU LokSound 5 sound decoder list for \$319.98. Wm. K. Walther's Inc. 414-527-0770, walther's.com

Rubber tires, plastic wheels, and metal axles. Etched-metal walkway platform. Air tanks and suspension details. Compatible with all Athearn 20-foot intermodal containers. Chassis and container, \$49.99; container two-pack, \$47.99. Athearn Trains, 800-338-4639, athearn.com

## N scale locomotives



- **Electro-Motive Division NW2 diesel locomotive.** Burlington Northern; Atchison, Topeka & Santa Fe; and Union Pacific. Two road numbers per scheme. Light-emitting diode lighting including directional golden white headlights and number boxes with light piping. Body-mounted knuckle couplers. Direct-current model, \$135; with DCC, \$235; with DCC and sound, \$335. Kato USA, 847-781-9500, katousa.com

## N scale rolling stock



- **52'-6 inch 15-panel mill gondola with dents.** Pittsburgh & Lake Erie; Chicago, Burlington & Quincy; Chicago, Rock Island & Pacific; Conrail; Erie Lackawanna; Great Northern; New York Central; Nickel Plate Road; and St. Louis-San Francisco (Frisco). Six

numbers each. Light, medium, or heavy dents. Pullman-Standard or Dreadnaught ends with appropriate brake system. Metal wheels and knuckle couplers. Minimum radius: 9.75". \$37.95. Bluford Shops, bluford-shops.com



- **52'-6 inch drop-end gondola.** Great Northern, St. Louis-San Francisco (Frisco), New York Central, and Union Pacific. One road number per scheme. Positionable drop ends. Detailed underbody with separate, factory-applied components. E-Z Mate Mark II couplers and blackened metal RP-25 contour wheels. \$42. Bachmann Trains, 215-533-1600, bachmanntrains.com



- **Pullman-Standard 60-foot container flatcar.** TrailerTrain and TTX (all with VTTX reporting marks). New and weathered paint schemes. Multiple road numbers per scheme. Die-cast metal underframe. Detailed plastic deck with optional pedestals to accommodate 20- and 40-foot containers. JTC 70-ton trucks with metal wheelsets. Body-mounted JTC Very Real Knuckle couplers. Unweathered car, \$48.95; with weathering, \$49.95. Jacksonville Terminal Co., jtcmodeltrains.com MR



A team track is a freight car loading and unloading point for industries that don't have rail service. Tom Klimoski made this concrete ramp for his HO scale Georgia Northeastern, as shown in our November 2020 issue. Tom Klimoski photo

## Adding team track operations to a layout

**Q** I keep seeing references to a “team track” on track plans. What is a team track, what is it for, and how can it be incorporated into operations?

Damien Bouchey

**A** The idea of the team track probably dates back to not long after the invention of the railroad. After all, a team track is literally nothing — a track alongside an empty space. A team track is where the railroad spots freight cars consigned to an industry that doesn't have a railroad spur of its own. The consignee would then send trucks, or earlier, horse-drawn wagons, to unload the freight into. The name “team track” derives from the teams of horses that pulled those wagons.

A team track can be as simple as a section of track next to an empty lot, either paved or gravel, or it could include fixtures like the freight ramp Tom Klimoski built for his HO scale Georgia Northeastern layout (see the photo above). Team tracks that frequently receive bulk cargos might be equipped with equipment to aid unloading, such as movable conveyors for coal or gravel, air blowers for unloading pressure-differential covered hoppers, or pumps for liquids such as fuel oil.

A team track could be a designated siding in a yard or at a freight house, a repurposed spur that used to serve a now-shuttered industry, or an otherwise unused stretch of track leading to an active industry. This latter option can complicate delivering or picking up cars at that industry, but complications are realistic and make the local switch job more fun.

Operationally, team tracks are what we call “universal industries,” in that they can conceivably receive almost any cargo, depending on what unmodeled industries you decide are nearby on your layout. Modelers like including them because they provide a justification for adding different types of cars to the layout.

If you use a scheme like car cards and waybills to route your freight cars, invent a few off-layout industries and print up waybills dispatching cars meant for them to the team track. Some candidates and the cars they would receive might be an oil dealer (tank cars), a lumberyard (conventional or center-beam flatcars), an appliance dealer (boxcars), and a coal dealer (hoppers). Each would receive only one or two cars a week, which would explain why those industries don't rate spurs of their own.

**Q** Now that I'm retired, I'm planning a two-level around-the-walls model railroad. My space is roughly 12 x 18 feet. I am 5'-6" tall, so the lower deck will be at a height of 38 to 40 inches and will be 18 to 20 inches deep. I want to have a separation between the levels of 18 to 20 inches. The upper level will be 20 to 24 inches deep. Rather than a helix, I prefer using a gradual hill climb to reach the upper level. Math was never my strong suit, and I was hoping you could help me figure out how to maintain a grade of 1 to 1.5%. Based on a rise of 18 inches and a grade of 1 to 1.5%, how do I determine how long a run I need to get from the lower level to the upper level?

Joe Grdinich, Center Conway, N.H.

**A** What you're talking about is called a “nolix,” a model railroading neologism derived from “no helix.” As Gerry Leone explains in *The Model Railroader's Handbook*, “Depending on the height of the second deck, this method can take a lot of linear space to execute and potentially puts the whole layout on a somewhat steep grade, requiring either helper engines or shorter trains.”

This is the issue you run into. A train room of only 12 x 18 feet doesn't offer a whole lot of space for a long run. If you plan an around-the-walls layout with one central peninsula oriented the long way in the room, a rough estimate gives a maximum mainline run in the vicinity of 90 feet or less. Grade is a percentage that expresses the percentage of rise over run. To calculate the grade on a double deck layout, divide the rise by the run; to calculate the rise, multiply the run by the grade. So if you want a grade of 1.5% in that 90 feet, that yields a rise of 1.35 feet, or about 16". You might think you could live with that, but that's not taking two or three inches of benchwork thickness into account. Or flat areas. The longer your yards, towns, and industrial switching districts are, the less rise you'll get out of that 1.5% maximum grade with shelf depths of 18 to 24 inches.

Tom Ebert, whose HO scale double deck nolix layout was featured in *Great Model Railroads 2020*, makes it work with a maximum grade of 2%. But he had an 11 x 27-foot space to work with, and kept his upper deck quite skinny

Send questions to Senior Associate Editor Steven Otte at [AskTrains@Trains.com](mailto:AskTrains@Trains.com).





Tom Ebert's HO scale Placerville Branch, seen in *Great Model Railroads 2020*, climbs continually around the room to connect two decks of model railroad. This kind of layout, called a "nolix," requires a long mainline run to yield both a manageable grade and adequate clearance between levels. Tom Ebert photo

— in some areas as narrow as 6 inches. Since your room is two-thirds the length of Tom's, you're facing some tough compromises if you want to stick with your double-deck idea. Perhaps a steeper grade, some switchbacks, a train elevator, or a track cassette to move trains from one deck to the other could help.

**Q My HO scale Broadway Limited Imports Reading Co. T-1 steam locomotive is making clicking noises. The strange popping, cracking noise is most noticeable in curves. Otherwise, the engine runs fine. I have attached a short video. Any thoughts?**

Bill Franz

**A** Your video doesn't really help me diagnose the source of the sound, since I can't tell what part of the locomotive the sound is coming from. It could be coming from the mechanism, the speaker/sound system, or the track. There are ways you can narrow it down, though.

First, if the locomotive is Digital Command Control and sound equipped, eliminate the possibility that it's a faulty sound system by muting the sound effects. On most decoders, pressing Function 8 does that.

If it still makes the sound with the decoder muted, try placing a finger across the track to stop the engine's forward motion while the motor is still running. If that stops the sound, then the cause is likely a loose part dragging and bumping along the ties or spikes underneath the locomotive. Invert your locomotive in a foam cradle and look for anything that might drag along the track, like a loose stirrup step.

If the sound continues, then the cause must be something in the engine's mechanism. If you can spot no obvious



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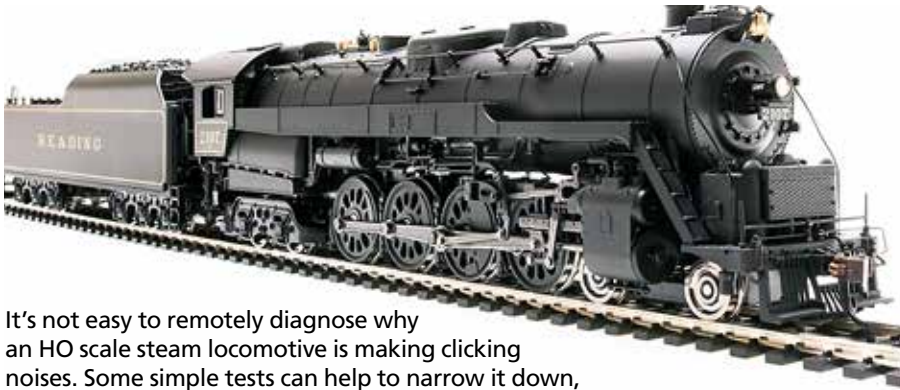
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It's not easy to remotely diagnose why an HO scale steam locomotive is making clicking noises. Some simple tests can help to narrow it down, though. Broadway Limited Imports photo

binding or jumping in the side rods or valve gear on either side of the locomotive, then the sound must be internal. Take off the boiler and give the drivetrain a good once-over. Look for loose or broken parts that could have fallen into the gears or the motor. Also check for cracked gears or driveshaft linkages. Remove the motor so the drivetrain and wheels can spin freely, then roll it on a track manually to see if you can isolate the source of the sound. Good luck.

**Q What causes a steam locomotive's chuff sound?**

Tom Huckaby

**A** That distinctive sound is made by spent steam and exhaust smoke escaping through the smokestack of a steam locomotive. For a more detailed explanation, take a look at Brian Solomon's book *How Steam Locomotives Work*. But since my space here is limited, I'll try to boil it down for you. (Get it?)

In a steam locomotive's firebox, fuel is burned to heat the water in the boiler, turning it to steam. As the steam rises, it collects in the steam dome, where it's funneled down the dry pipe to the steam chests atop the cylinders. It's the cylinders that convert the expanding steam into mechanical energy.

As the wheels turn, attached mechanical arms called valve gear circulate, pushing the slide valve back and forth inside the steam chest. This routes steam into the front or back of the piston, driving it back and forth. Spent steam is then pushed out and into the smokebox, where it helps carry the smoke from the firebox out the smokestack with a "chuff" sound.

This happens twice per stroke of the piston. So that's two chuffs. But if you listen to a steam engine, it produces four chuff sounds per revolution of the drive wheels, not two. That's because the set of drivers on the other side of the locomotive is rotated 90 degrees (or "quartered") ahead of the opposite one, not synchronized with it. **MR**



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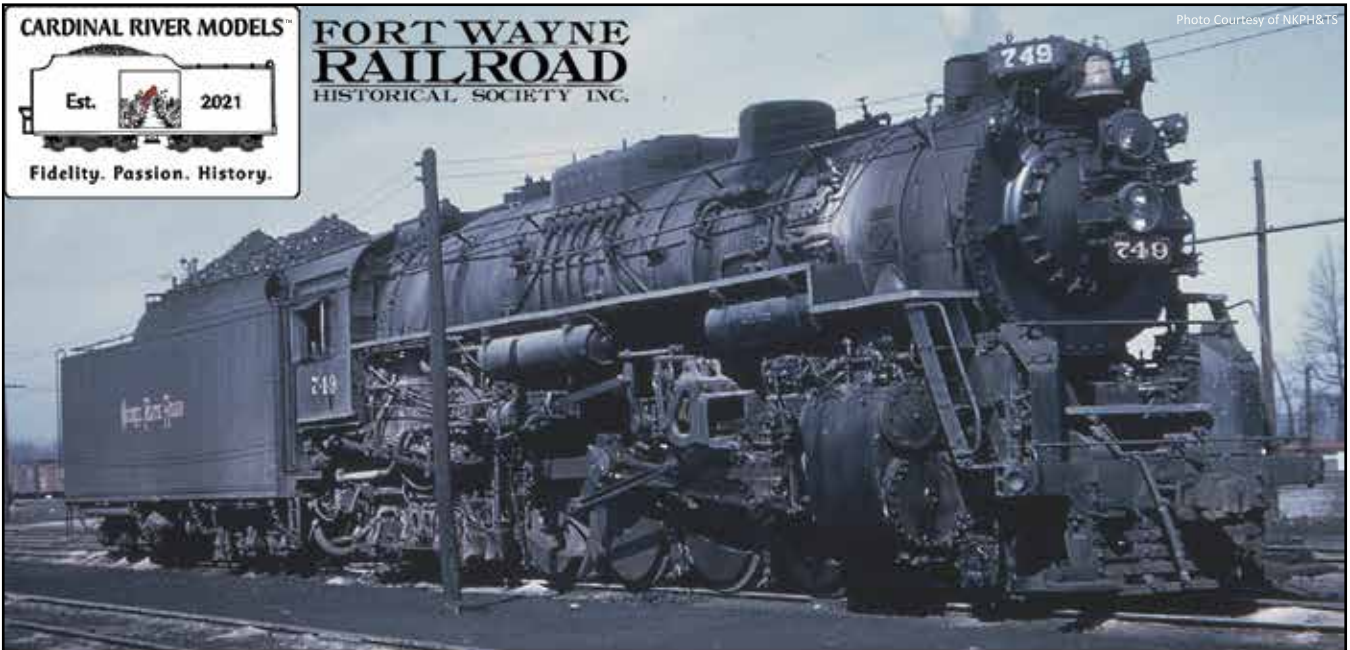
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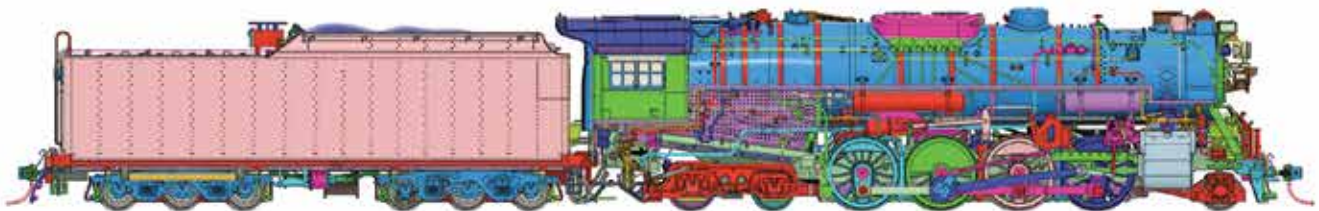
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Off-the-shelf spray paint gives the roadbed and track on Tim Garland's HO scale Seaboard Central a realistic appearance. Once he's satisfied with the track arrangement and operations, Tim applies ballast over the painted cork. Photos by the author

## Ballasting made easy with spray paint

**Realistic, prototype-based** operations is my favorite aspect of model railroading. On my HO scale Seaboard Central, this means running solo practice operating sessions to test track arrangements for prototypical performance, free of derailments. Sometimes a simple change that can improve operations may not be immediately evident. But making changes can be difficult (and expensive) if the ballast and scenery are already in place. The temporary solution? Spray paint.

The notion of using stone texture and camouflage spray paint may seem a bit unusual. However, staring at cork roadbed and unpainted track for months isn't exciting, either. With texture paint, I was able to give the cork roadbed a ballasted appearance as I tested track arrangements. Similarly, I was able to tone down the shiny rails and plastic ties on commercial track with camouflage spray paint and assorted hobby paints. Learn more about this in steps 3 and 4.

If you're looking for a happy medium between Plywood Pacific and finished scenery, consider using spray paint. These easy-to-use methods will give your layout a temporary finished appearance while still moving the model railroad closer to completion. **MR**

*Tim Garland is a locomotive engineer for Norfolk Southern. His 11 x 22-foot HO scale Seaboard Central layout was featured in the June 2023 issue of Model Railroader magazine.*

### STEP 1 PREPARING THE CORK



I use cork roadbed on my layout. After cutting the strip and sheet to fit each location, I glue it down with DAP Dynaflex 230 sealant. Weights and T-pins are handy for holding the cork in place as the sealant dries.

Next I use sandpaper to smooth rough spots, such as the shoulders of the roadbed and uneven transitions between pieces ①. I also use sandpaper to taper areas away from the tracks around turnouts and in yards.



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## STEP 1 PREPARING THE CORK (CONT'D)



After the sanding is complete, I clean up any cork residue with a shop vacuum. I then fill in gaps with light-weight spackle applied with a plastic trowel **2**. I use DAP Patch-N-Paint, but other brands will work. Some touch-up sanding and vacuuming will likely be necessary once the spackle dries.



I wrap up this phase of the project by painting the cork with Apple Barrel Pewter Gray craft paint (2620E) **3**, which you can find at craft stores and some big-box retailers. I use a 1"-wide foam brush to apply the paint, but a similarly sized chip brush would also work. The pewter gray gives the cork a warm granite look.

## STEP 2 ADDING TEXTURE



**Prototype ballast** isn't uniform. The ballast in **1** is made up of rocks that are brown, tan, and light and dark gray.

To capture that look, I use assorted colors of texture spray paint. My go-to colors are Krylon Black Granite (18201) and Charcoal Sand (18202), along with Rust-Oleum Gray Stone (7992830), Pebble (7995830), and Mineral Brown (342731) **2**.

Texture spray paint has a tendency to spatter, so I apply it to the layout sections outdoors. Make sure to wear



personal protective gear (respirator, nitrile gloves, goggles, etc.) and work in a well-ventilated area when using the paint. Thoroughly clean the nozzle after each use to prevent it from clogging.

For best results, I apply the paint in layers **3**. I typically start with darker colors along the edges and secondary tracks. I shift to lighter colors in the center of the roadbed and on the main line. For embankments and dirt areas, I use Mineral Brown.



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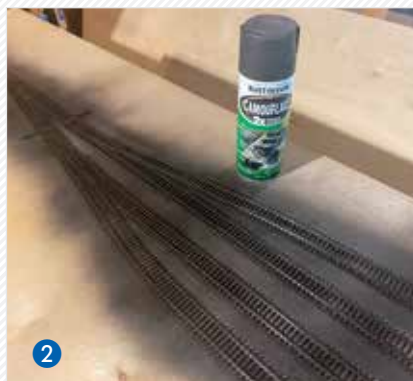
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## STEP 3 PAINTING THE TRACK



**Next, I turn my attention** to the track. To avoid ruining the textured roadbed, I paint the track before securing it to the layout.

First, I temporarily position the track on the roadbed to make sure everything fits properly **1**. I then remove the track in sections and place it on a scrap piece of plywood for painting. Working in a well-ventilated area and

wearing safety gear, I spray the track with Rust-Oleum Camouflage Earth Brown (279178) **2**.

Before the paint is dry, I use a scrap piece of wood to clean the railheads **3**. If the paint dries, you can still use wood to remove it, but you'll need to apply more pressure. Stubborn spots can be cleaned with a cotton swab and paint thinner.

## STEP 4 IT'S ALL ABOUT THE DETAILS



**Prototype crossties vary in color** depending on type and age. The Camouflage Earth Brown captures the look of new creosote-treated ties. Tamiya Buff (XF-57) is a good match for salt-treated ties.

As crossties age, they tend to turn gray. To capture the look of aged ties, I use Tamiya Flat Brown (XF-10), Flat Earth (XF-52), and Medium Gray (XF-20) **1**. Sometimes I apply the colors full strength. Other times I dilute them with Tamiya acrylic thinner so the woodgrain texture on the ties stands out.

Mainline ties tend to be replaced more often than yard ties, so I use less gray on those tracks. On yard and

industrial tracks I use more gray to suggest the ties have been in place longer.

Finally, I paint the sides of the rails and tie plates. Rails also vary in color depending on track usage. The rails on busy lines often have a Raw Umber appearance. On lightly used routes the color is closer to Burnt Umber. Tamiya Red Brown (XF-64) falls somewhere between Raw and Burnt Umber **2**.

Spray paint is a great way to temporarily scenic the right-of-way **3**. The techniques presented here give you the flexibility to test different track and structure arrangements before adding the final scenery.





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# HOW TO MODEL A SIGNATURE STRUCTURE

3-D printing turned this HO scale building from dream to reality

By **Harvey Simon** • Photos by the author

One of the biggest challenges I've encountered on my San Francisco F Line layout (featured in the July 2018 issue of *Model Railroader*) has been replicating the actual structures that dot the F Line. This wasn't as difficult in the Castro section, where the layout's linear design lends itself to a more conventional approach through kitbashing and modest scratchbuilding efforts.

However, this became more of an issue as construction proceeded into the downtown section, where the layout turns a corner and continues on toward Fisherman's Wharf.

Also, with the track bisecting the scene, I needed structures both behind and in front of the track, which created a challenge of composition. I didn't want the foreground to block the view of the background. And with the track making a broad left turn, I also needed to make sure the foreground structures fit within the available footprint. Too many buildings would have choked the scene, especially if an abundance of tall structures were included.

My solution is the subject of this article — the circular glass E-Trade building located on Market Street in downtown San Francisco. This prototypically low structure is in an area where pedestrians can wander around amid the trees and grassy areas. The building's natural setting, plus its round shape, provided a modeling opportunity to reduce the layout's congestion while also giving it some much needed scenery. Trees and ground foam in various colors and textures, not to mention the cool RuRu Kitchen food truck, give this area a nice scenic pop.

## Designing the structure

However, the E-Trade building isn't exactly a product that you can buy from your local hobby store. Scratchbuilding would have been a bear, especially the roof, so I chose to 3-D print the building.

I worked with a local 3-D computer-aided design (CAD) designer — Scott Tarcy of [caddesignhelp.com](http://caddesignhelp.com) — who did the design and printing. The building



was printed in two pieces, the base and roof. I'd taken measurements of one of the 40 or so identical panels of the actual building and gave these to Scott. He was then able to overlay the design onto a photo of the building to make sure everything looked correct and to scale.

Aided by a Google satellite photo, Scott then designed the roof. This photo showed something that might have been a skylight in the center of the roof, but it wasn't obvious, so I left it out.

My model has 22 panels, about half the number of the actual building. This was a necessary reduction in order to fit the available space. I wasn't sure if this would result in an overly compressed model, so I used a plastic tub to help visualize how everything would look ①. I thought it looked OK relative to its surroundings, so I proceeded.





To complete the downtown section of his HO scale San Francisco F Line traction layout, Harvey Simon turned to various modeling techniques to re-create the E-Trade building. The round structure, with its sawtooth roofline, adds visual interest to this downtown scene.

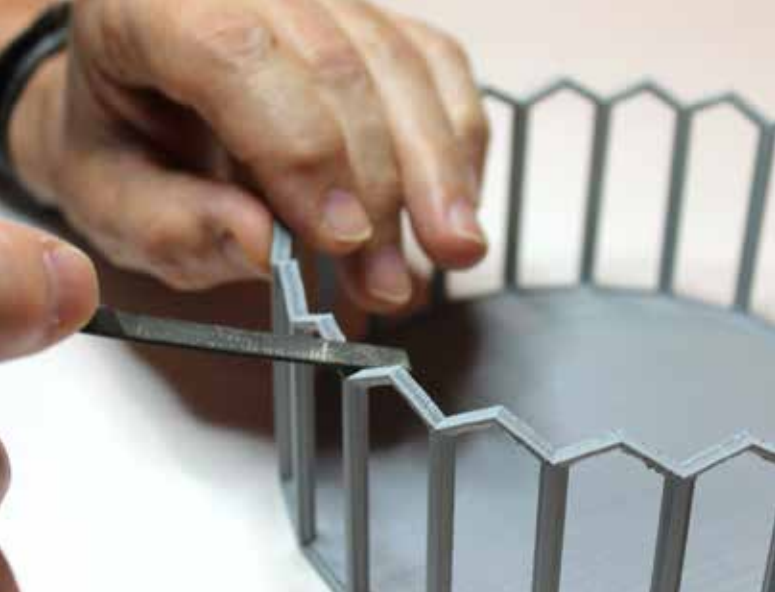
### Assembly and paint

After printing, the first step was to file some of the rougher edges and remove the burrs from the printing process ②. This was a little stressful, as the 3-D printed model is delicate. I used modeler's putty to fill any low spots and gave the model a coat of gray Rust-Oleum primer. This helped to highlight the areas that required some additional sanding. I then airbrushed the base with Tamiya XF-72 Brown and let it dry for a few days.



① **LAYING THINGS OUT.** Harvey used a plastic whipped topping container to visual how the E-Trade building would fit in the scene. He left plenty of space for trees and grassy areas on the plaza.





**2 TOUCH-UP TIME.** Objects printed in 3-D are built up in layers, which may result in lines on the print. To make them less noticeable, Harvey gently used jeweler's files to smooth the surface. Be sure to take care, as 3-D parts can be fragile.



**3 CHECKING THE PITCH.** Harvey used a multi-step process to ensure the clear styrene would fit the openings. First, he used a pencil to trace the panel outlines in order to get the roof pitch correct.



**4 DIALING IT IN.** Harvey next used calipers to accurately measure the panel width. Each panel is  $5\frac{1}{64}$ " wide. This measurement will be used to make a cutting template.



**5 A HANDY TOOL.** After ensuring the cutting template fit each panel properly, Harvey used it to cut multiple pieces of clear styrene for the windows.

The windows came next. I first made a panel outline by tracing it on paper to get the roof pitch correct **3**, and then made a more exact side to side measurement using digital calipers **4**. Next I made a cutting template from styrene. Note how it fits inside the panel **5**.

At this point I made the window frame trim pieces from .040" x .080" styrene strip that I'd previously airbrushed Vallejo 69.062 Mecha Bronze. In hindsight, I should have asked the designer to include these on the model, as the trim work was tedious.

After attaching the trim, I cut the windows from clear styrene and glued them in place. This is a little tricky, as the space is tight **6**, but it's the most crucial part of the model. I used Faller Expert liquid cement, which proved to be much neater than cyanoacrylate

adhesive. I used the base of a combination square to hold the panel in place while the glue dried. When installing windows, go easy on the glue, as any excess will be visible.

I fabricated a doorway from styrene for one panel. The prototype building has a front and back entrance. Since the model is only visible from the back, I only needed one doorway. Then I added the "Exit Only" sign on the door from spare decals I had from left over from an earlier project.

The next step was to paint the roof. I used Krylon Camouflage, a light tan, and weathered with an India ink wash and some pastel chalks. Before placing the roof (which isn't glued in case a window panel pops out and needs repair), I added a view block **7**. This is important, given how easy it is to see through

the clear styrene. The view block helps the windows reflect the outside scenery, which mimics the prototype.

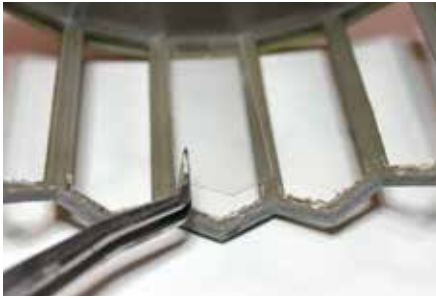
## Finishing touches

I then added the E-trade lettering and logo — also 3-D printed with the letters painted white. For the asterisk between the "E" and "Trade," I used purple and yellow extra fine-point markers to color the 3-D printed part.

The final detail is the ramp walkway leading from the back entrance. I made this by cutting a wood shim and sanding to shape. With the handrails, it adds a realistic feature that also reflects the prototype, albeit on its front side.

I landscaped the area using Woodland Scenics ground foam and Scenic Express SuperTrees. When I took





**6 Easy does it.** With the clear styrene glazing cut, Harvey secured it to the building with Faller Expert liquid cement. He applied the cement sparingly and positioned the styrene with tweezers.

photos of the prototype, I also noticed a RuRu Kitchen food truck which is headquartered at this location. Using an Oxford Diecast food truck, I was able to “truckbash” the model into a representation of RuRu Kitchen. Figures, bikers, a few benches, the chainlink fence, and a trash receptacle finished the scene. And with that, the F Line downtown section is now complete, **8. MR**

*Harvey Simon and his wife, Lisa, live in Boone, N.C. He retired in 2015 and now teaches part time at Appalachian State University.*



**7 NOTHING TO SEE HERE.** Since the building doesn’t have an interior, Harvey made a round view block out of black cardstock. He made sure it was slightly below the roofline.

**8 FINISHING TOUCHES.** Harvey completed the plaza around the E-Trade building by adding Scenic Express SuperTrees and Woodland Scenics ground foam. He kitbashed the food truck from an Oxford Diecast model.





# The Long Island

This 27 x 48-foot layout features freight and commuter operations

**By Brian W. Sheron**

Photos by Lou Sassi





# Rail Road in HO scale



1 A Long Island Rail Road Alco C420 leads a freight train past Huntington Harbor on Brian Sheron's HO scale layout. The 27 x 48-foot model railroad can be run in the diesel (1964) and steam (1954) eras.





2 This overall view shows the Port Jefferson Branch. The icing platform at Farmingdale, N.Y., is on the left side of the aisle. At right is Sunnyside Yard and Jamaica Station.

**M**y HO scale Long Island Rail Road (LIRR) layout occupies about three quarters of my basement. The original model railroad, started in 1988, depicts the Port Jefferson Branch from Greenlawn, N.Y., to the Jamaica neighborhood in Queens.

In 2005, when my youngest son went off to college, I cleared out an adjacent 12 x 12-foot room. This gave me space to add the City Terminal Zone, which runs from Jamaica to Pennsylvania Station.

In 2015, I retired and received permission from my wife to expand into the back portion of the finished part of the basement. My primary desire was to model the car float bridges in Long Island City. I also moved an existing freight yard from the Port Jefferson Branch to the newly built Atlantic Branch. This move gave me some much needed aisle space.

### Why the Long Island Rail Road?

Although I've lived in Maryland most of my life, I was born and raised on the north shore of Long Island. My family



3 Baldwin VO660 No. 450 rumbles over the East River into Manhattan with a short freight. The bascule bridge is an out-of-production AHM kit.

lived about 2 miles from the Greenlawn station and about 5 miles from the Huntington station.

When I was around 7 years old, my dad would take me to Greenlawn and we would watch LIRR class G5 4-6-0s pull into the station with P54 passenger cars in tow. About a decade later, I sat in my high school classrooms and looked out the window to see Alco C420 diesels pulling freight and passenger trains.

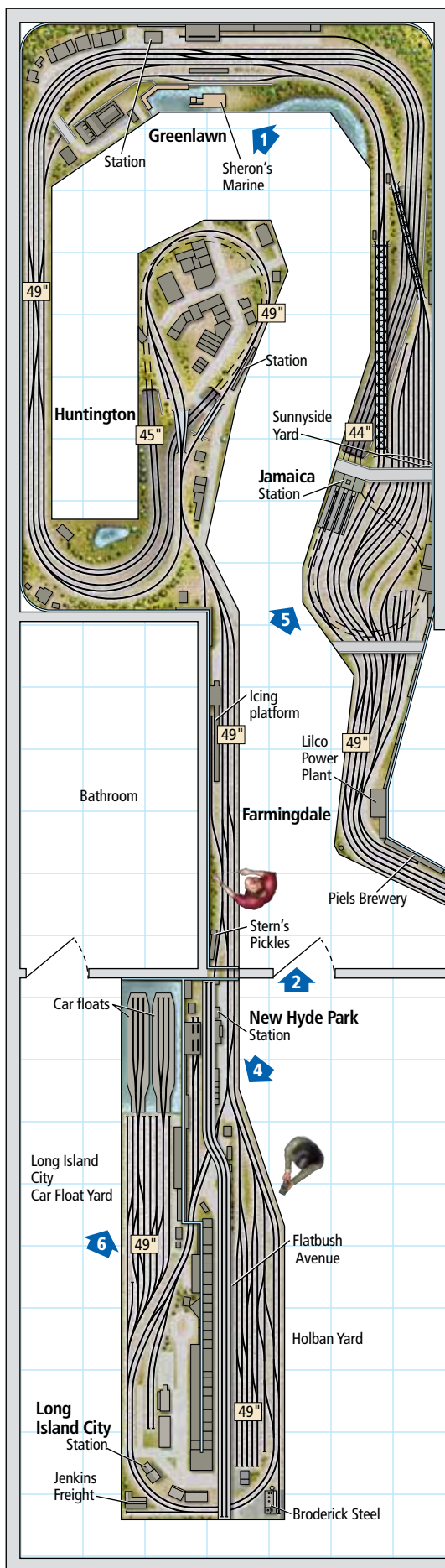
### Getting started

As our new house was being built in the late 1980s, I began drafting the LIRR track plan. I kept John Armstrong's "givens and druthers" in mind during this process. Givens are must-have features (modeling scale) and things that can't be changed (room size). Druthers are things we would like to include but can be flexible with.



PORT JEFFERSON BRANCH

ATLANTIC BRANCH



## The layout at a glance

**Name:** Long Island Rail Road  
**Scale:** HO (1:87.1)  
**Size:** 27'-7" x 48'-9"  
**Prototype:** Long Island Rail Road  
**Locale:** Queens, Brooklyn, Manhattan, and north shore of Long Island (to Greenlawn)  
**Era:** 1964 (diesel) or 1954 (steam)  
**Mainline run:** approximately 300 feet  
**Minimum radius:** 24"  
**Minimum turnout:** No. 4 (yards), No. 6 (main and crossovers)

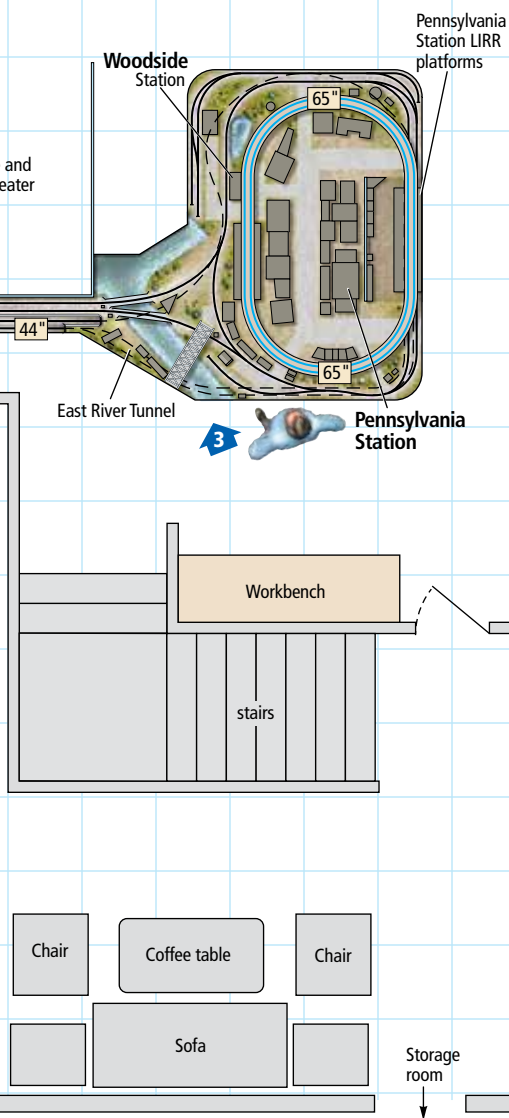
**Maximum grade:** 3%  
**Benchwork:** L-girder  
**Height:** 44" to 65"  
**Roadbed:** Homabed and cork  
**Track:** code 83 and 70 flextrack  
**Scenery:** wood forms covered with Fiberglas screen mesh and plaster  
**Backdrop:** photos and hand-painted  
**Control:** Digitrax Digital Command Control

## Long Island Rail Road

HO scale (1:87.1)  
 Layout size: 27'-7" x 48'-9"  
 Scale of plan:  $\frac{3}{16}$ " = 1'-0", 24" grid  
 Numbered arrows indicate photo locations  
 Illustration by Kellie Jaeger

Find more plans online in the Trains.com Track Plan Database.

CITY TERMINAL ZONE  
 New York City





## Trains below ground

**The Long Island Rail Road's** City Terminal Zone ran from Jamaica Station to Pennsylvania Station in Manhattan. The railroad's platforms were two levels below ground in Manhattan. An opening in the fascia lets visitors and operators see the shopping concourse and platforms that I modeled.

Since the opening is below eye level for most viewers and operators, I tiered the levels. The LIRR track and platforms stick out from the shopping concourse. Directly above the scene is a double-track LIRR line and elevated subway, minimizing the chances this area will become congested with operators.

I illuminated the scene with light-emitting diode strip lights. The LEDs do a good job of lighting the below-benchwork scene. — *Brian W. Sheron*

At the time I wasn't involved with an operating group, so one of my druthers was that I wanted the trains to be able to run unattended if I was talking with a visitor. This led me to design the main line as a double-track folded dogbone.

The plan had two branches off the main line. One led to Huntington and then to a freight/passenger yard. The other led to the larger Sunnyside Yard and Jamaica Station in Queens. This section of the layout was completed in 1996.

### Adding on

In 2005 I expanded the layout. I focused on the LIRR's City Terminal Zone. This included modeling a reasonable facsimile of New York City.

If I had modeled the East River and Pennsylvania Station to scale, it would have taken up most of my house. I selectively compressed both. I always thought that overhead "el" trains personified a city atmosphere, so I built a double-track, elevated loop around my model of NYC so I could run subway cars.

In order to show the underground platforms that the LIRR used at Pennsylvania Station, I modeled a cut-away scene. I included the shopping concourse one level below the station and the LIRR track platforms below that. [See "Trains below ground" at left. — *Ed.*]

### Switching gears

It was around this time that a friend of mine who was in the Baltimore Society of Model Engineers invited me to visit their club layout in downtown Baltimore. While I was watching the club members operate trains, I was smitten by a sound-equipped diesel running on direct current.

When I got home, I immediately ordered a diesel with sound. When it arrived, and after I ran it a bit, I concluded that I needed to convert to Digital Command Control (DCC). I then spent several months rewiring the layout and installing DCC.

The model railroad is currently electrically separated into three districts. One is powered by a Digitrax DCS100 command station; the other two are powered by DB150 boosters. I mounted several Digitrax UR91 radio receivers around the layout so trains can be operated with tethered or wireless throttles.

In addition, I have a Digitrax LNWI connected to the LocoNet. With a throttle app, trains can also be run using a smart phone.



④ After picking up a cut of tank cars from the car float yard, Alco C420 No. 221 heads east toward New Hyde Park. Above, R-22 cars hustle between stops on the elevated line. The Alco model is by Atlas; the subway cars are MTH products.





5 As Long Island Alco RS3 No. 1554 pulls a string of refrigerator cars out of Sunnyside Yard at far right, commuters hustle to and from trains at Jamaica Station. The commuter cars are a mix of NJ Custom Brass and Funaro & Camerlengo cast-resin models. Brian used a Vollmer kit as the starting point for the station.

## The operation epiphany

In 2008 the Potomac Division of the National Model Railroad Association (NMRA) asked me if I'd open my layout for tours. I agreed. After the tour was over, a division officer asked if I'd be interested in joining him and several others at an operating session.

I found operation added a new dimension to the hobby. Then it was suggested that I host a session. I had no experience setting one up, but I took a crack at it.

After the first session I learned that I needed to make a number of track changes. I had facing-point sidings with no runaround and sidings that were too short. Once I made the necessary adjustments, my sessions ran much smoother.

## The Atlantic Branch

I retired in 2015, giving me more time to work on the layout. My wife, Kathy,

was supportive of me expanding the model railroad into the back half of the finished side of the basement. But what to model?

While attending a Mid-Eastern Region NMRA convention in New Jersey, I spotted a Free-Mo module with a car float bridge and a car float. The LIRR had car floats at Long Island City (Queens) and Bay Ridge (Brooklyn). Since the Bay Ridge yard had catenary, which I didn't want to model, I selected Long Island City.

The Atlantic Branch is a 5 x 17-foot island with a backdrop running down the middle. The car float bridges and barges are the focal point on one side of the island. Because a section of the aisle on the Port Jefferson Branch was too narrow to accommodate two operators at once, I relocated Holban Yard to the Atlantic Branch.

I also had a fascination with stores (and business signs) in Brooklyn, so I modeled Flatbush Avenue just behind

the relocated yard. I also added an industrial area called Nostrand Avenue.

## Layout features

It wasn't my mission to faithfully recreate any specific area. Rather, I wanted to capture the feel of the various parts of Long Island and New York City. For example, the LIRR didn't run close to Long Island Sound or any of the harbors along the north shore except on the eastern tip of the island. However, my father owned a small marina on Huntington Harbor, so I built a model of it, which required I locate it on water.

I also love the view one sees when standing on Crabb Meadow Beach and looking north at the coast of Connecticut about 12 miles in the distance. I added this scene to the layout, as well.

All mainline track is Atlas code 83 flextrack. I used code 70 flextrack at Sunnyside Yard. The layout has more than 800 vehicles and 2,000-plus figures.





## Meet Brian Sheron

**Brian Sheron and his wife, Kathy,** live in Poolesville, Md. He has been active in the hobby for more than 40 years and is National Model Railroad Association Master Model Railroader 469. Brian retired in 2015 from the U.S. Nuclear Regulatory Commission after 42 years of service. When he isn't working on his layout, Brian plays the banjo in a local band and enjoys boating.

In 1949, the PRR sold the Long Island and the LIRR went into receivership. The State of New York began to subsidize it and the paint scheme was switched to Tichy Gray.

The LIRR ran steam engines during the PRR and Tichy eras. Fortunately, Funaro & Camerlengo started producing resin kits of the LIRR P54 passenger cars with round and clerestory roofs. I built a number of the kits and painted them in both schemes. If I feel like running steam, I just turn the clock back to 1954.

## The next steps

Recently, I've been adding animation to the layout. I installed the Logic Rail Technologies Grade Crossing Pro circuit at three crossings. The circuits use infrared emitters and detectors to sense trains and activate the flashing red lights, lower crossing gates, and trip the crossing bell.

I also added the same firm's Signal Animator/2 and Block Animator/2, which simulate prototype railroad signaling. I installed several functioning semaphores that indicate to operators when facing-point turnouts are lined against them. Perhaps not totally prototypical, but it adds some fun animation to the layout.

As I discover new products that will enhance operations on my HO scale LIRR layout, I plan to add them when and where feasible. **MR**

**6** An Alco road switcher works the car float yard on the Atlantic Branch, the newest section of the layout. The float bridges and gantry cranes are Walther's models that Brian modified to better match the prototypes in Long Island City.

I also added lighting to the original layout and the Atlantic Branch. In addition to interior building lights, street lights, and operating traffic signals, I've placed more than 40 electroluminescent signs on the layout. These are a combination of off-the-shelf Miller Engineering signs and several custom-made signs made using its experimenter's kits.

After I finished the Atlantic Branch, I discovered the MTH Electric Trains HO scale Metropolitan Transportation Authority subway sets. The R-22 cars came with DCC and sound, including conductors with genuine Brooklyn accents announcing station stops.

The subway cars inspired me to model an "el" line above my rendition of Flatbush Avenue in 2019. While an elevated subway didn't actually run above the prototype location, adding it greatly enhanced the urban atmosphere I was trying to re-create.

## A tale of two eras

When I first began the layout, I set the era as 1964. This was the year New

York hosted the World's Fair in Flushing Meadow on Long Island. The LIRR commemorated the event by painting its Alco high-hood C420 and Alco RS3 diesels in the orange-and-gray Goodfellow scheme. I amassed a fleet of diesels that the LIRR owned in that scheme.

A big part of the railroad's passenger fleet was the class P54 cars. Most of the prototypes were built in the mid-1920s and were still in service through the early 1970s. Early on my fleet consisted of imports from NJ Custom Brass produced in the 1970s, since these were the only models available at the time.

When BLI released its HO scale class K4 4-6-2 and H10 2-8-0 steam locomotives, both of which operated on the LIRR, I took a liking to the steam era. The LIRR ran steam engines until 1955.

From roughly 1900 to 1949, the LIRR was owned by the Pennsylvania RR (PRR). Hence, all of its passenger cars were painted in the PRR Tuscan Red with LONG ISLAND in the letterboards.





# A yard office you can model

Cody Grivno shares ideas for modeling this BNSF Ry. yard office in Milbank, S.D., in HO scale using readily available scratchbuilding supplies and detail parts. This view shows the north (track) and east faces of the building.

## Ideas for scratchbuilding this BNSF Ry. structure in HO scale

By **Cody Grivno** • Photos by the author

**L**ittle did I think when I visited Milbank, S.D., I would find a yard office you can model. But there, at the corner of North Main Street and East Railway Avenue, was a BNSF Ry. structure well-suited for a model railroad.

I was unable to measure the building. If I were to guess, I'd say the dimensions are around 21'-9" x 47'-3" with a 4/12 roof pitch. To scratch-build the yard office in HO scale, I would use Evergreen Scale Models 1/4" square standing-seam roofing (4522) for the wall panels below the

gables and the roof. The same firm's 4530 corrugated metal would work for the gables.

Pikestuff 541-1102 solid personnel doors are similar in style to those found on the prototype. I would use its 541-1201 as a starting point for the windows, kitbashing them as necessary.

### Street-side details

The first thing that stands out on the east side is the window air conditioner. Showcase Miniatures is one of many firms that offer a window air conditioner unit

in HO scale. I selected the company's item 2324 because it also has a power meter, which is needed for the west end of the building.

The weatherproof utility boxes, outlets, and conduit could be fashioned from styrene strip. For the conduit sections with bends, I would use phosphor bronze wire. For the straight runs you could use phosphor bronze, brass, or music wire.

### The little things

The south side of the office has a mailbox by the personnel door. The larger of the two mailboxes in Showcase Miniatures' kit 2339 looks similar to the one found on the prototype.

I couldn't find an exact match for the wall-mounted garden hose holder, but here's a potential workaround. Put a short piece of styrene rod or tube between two 3-D printed hubcaps from Miniprints. File the hubcap that will attach to the wall flat, paint the assembly black, and attach it.

I would use .080" styrene channel for the gutters and Pikestuff 541-1116 for the downspouts on the north and south sides of the structure. Use styrene rod and strip for the vent pipes on the south face of the roof.

### Supply storage

A steel-and-mesh cylinder cabinet, painted yellow with a "Danger. Flammable Materials" sign on the front, is used to securely store welding and propane tanks. I would model the cabinet using styrene strip and shape along with Scale Scenics 3500 (aluminum) or 3501 (brass) Micro-Mesh.

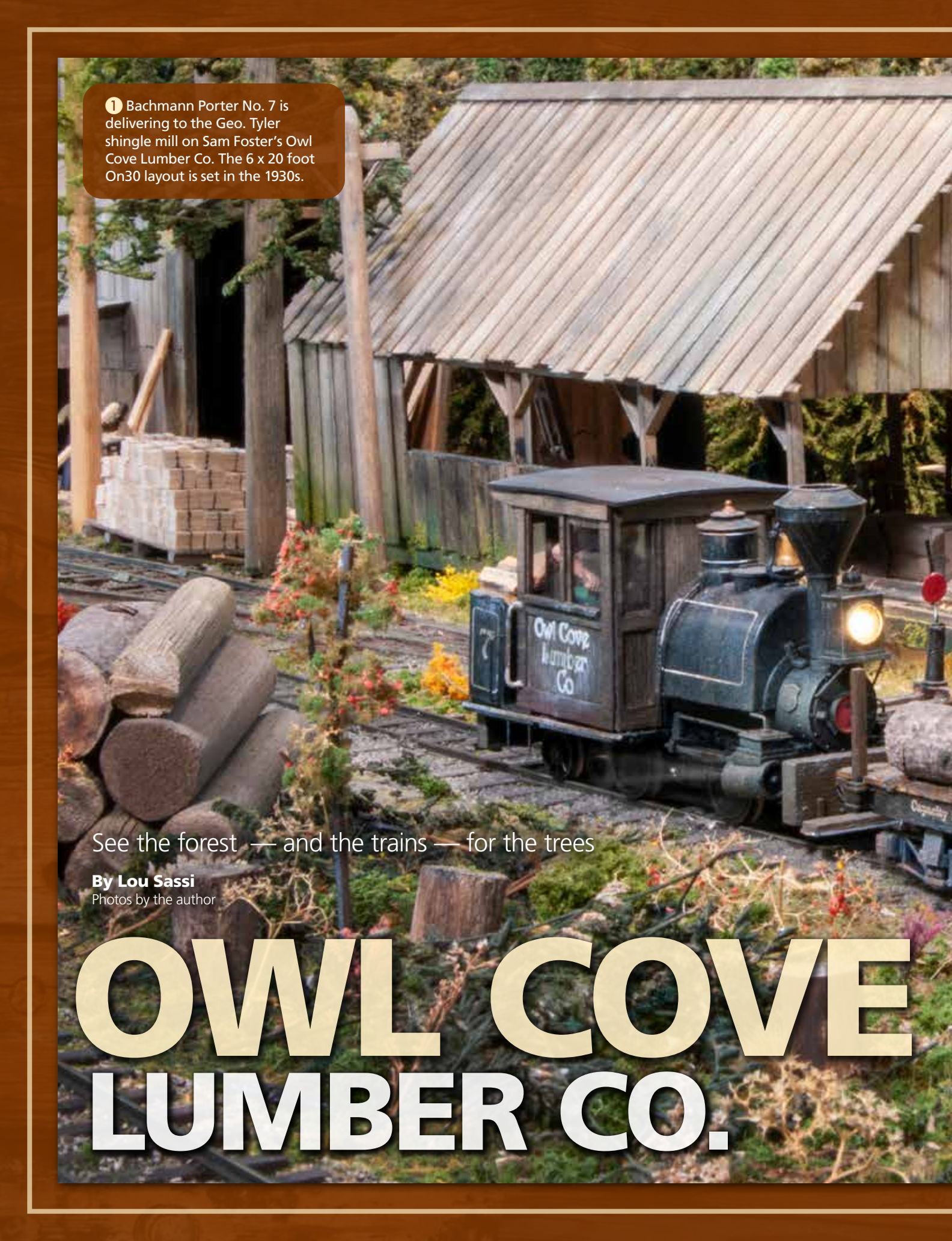
Next to the locker is a wire bin, painted industrial green, for defective tools. A steel storage basket from Preiser 18363 would work well for this detail.

Even if you don't scratch-build the BNSF Ry. Milbank, S.D., yard office, you can put some of the ideas presented here to use in your next structure project. **MR**



A steel-and-mesh cylinder cabinet, used for storing welding and propane tanks, is located on the west side of the building. Next to it is a bin for discarding defective tools.





1 Bachmann Porter No. 7 is delivering to the Geo. Tyler shingle mill on Sam Foster's Owl Cove Lumber Co. The 6 x 20 foot On30 layout is set in the 1930s.

See the forest — and the trains — for the trees

**By Lou Sassi**

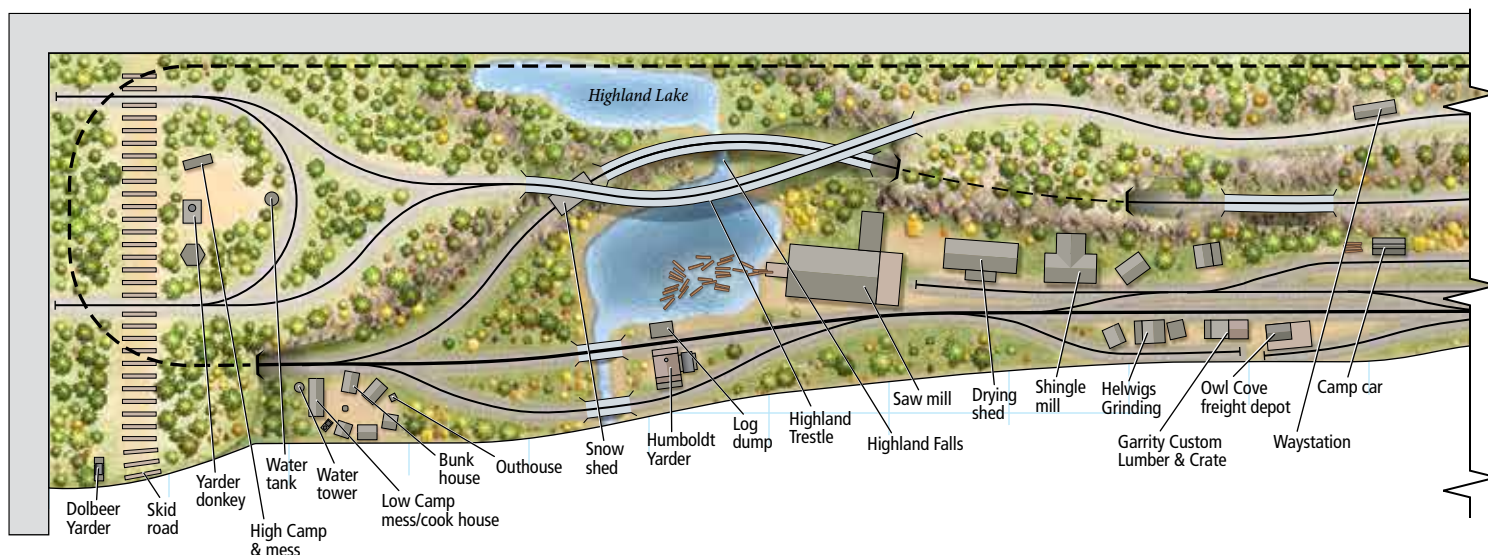
Photos by the author

# OWL COVE LUMBER CO.









**T**hough Sam Foster had a lifelong love of trains, it wasn't until his retirement that he could fully commit to the hobby. In the early 2000s, after he and his wife retired, they purchased a historic Victorian home and built a period-correct garage/carriage house on the property. There they could keep their cars on the first floor and model railroads on the second.

Sam's first project in the new model railroad space was the construction of a 12 x 20 iteration of Lionel's New York City showroom layout from 1948, which he saw when he was a child. That railroad still stands.

## From the city to the trees

Sam's interest in West Coast logging was kindled after the acquisition of a number of Darius Kinsey calendars. He has a friend in Maine whose family was involved with the lumbering and pulp and paper industries in that area. Both volumes of *Kinsey Photographer*, other books on West Coast logging (including *Glory Days of Logging*, *This Was Logging*, *Railroad in the Woods*, and *Logging*), along with visits and conversations with friends helped keep Sam's interest in logging railroads alive.

With the introduction of Bachmann's On30 line of rod and geared locomotives, Sam decided to model West Coast logging and began the construction of the railroad you see here.

## The layout

Owl Cove Lumber Co. represents a second-generation logging line running from the Snoqualmie Valley to the Northern Cascades in Washington State.

When work on this new railroad began in 2009, Sam consulted with a local group called What Details. Two members, Mike Tylick and Rob Quimby, helped with the benchwork and initial construction of the new railroad, with Mike designing the track plan and Rob wiring the layout. Sam credits Rob with being immensely helpful through the intricacies and implementation of Digital Command Control (DCC).

The benchwork is both open grid and L-girder. Track is a combination of weathered code 83 Micro Engineering flextrack and handlaid code 83 rail on bridges, all of which were scratchbuilt by Sam. All of the turnouts are Micro Engineering No. 5s controlled by Tortoise by Circuitron switch machines. Tam Valley Frog Juicers were used to control the polarity on the frogs.

The backdrop is hand-painted directly onto the drywall. Landforms are created using wood and cardboard strips covered with screen and plaster cloth. The plaster is colored with acrylics

during the mixing process, then painted with a brush or airbrush to add color to the finished surfaces.

Foliage is made from flocking, turf, leaf flakes, and sundry tree materials from Woodland Scenics and Scenic Express. Bushes and trees are all hand-made using Paul Scoles' techniques using individual twigs of flocked Scenic Express SuperTree material. They're planted by applying a drop of cyanoacrylate (CA) to the stems and quickly placing them into a shallow pool of Insta-Set accelerator. Enviro-Tex Lite two-part resin, with color added when needed, is used to represent water.

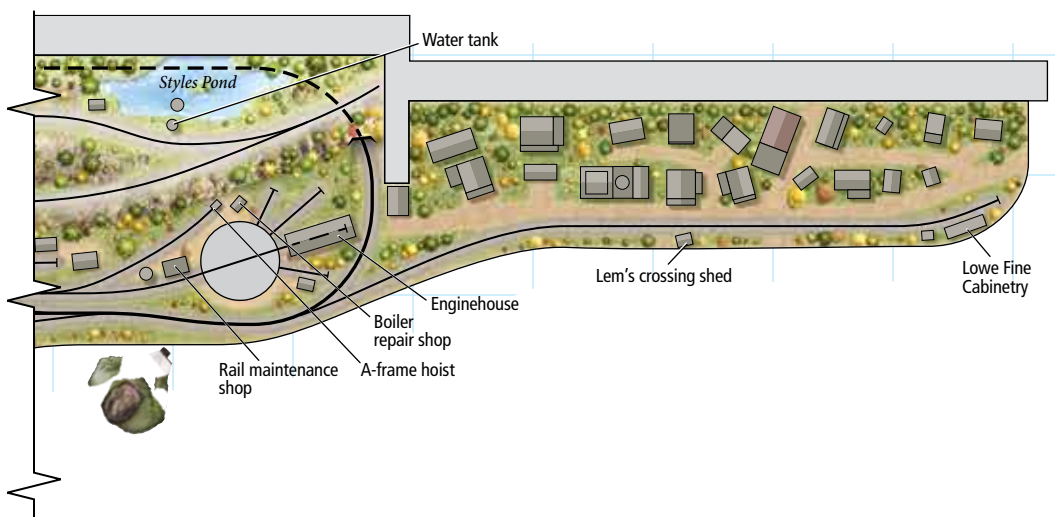
This scenery is lit by a lighting system that consists of overhead floodlights combined with dedicated spotlights to highlight areas of particular interest.

Many of the structures on the layout are craftsman kits, some modified to fit the scene into which they are placed. This includes the Hogan Sawmill, Geo. Tyler shingle mill, the Owl Cove freight depot, and Louis Fruit & Produce. The



**6** A Bachmann two-truck Shay delivers a load to Crick's Hardware. The town buildings in the background are a mix of Bar Mills and Banta Modelworks laser-cut craftsman kits.





## Owl Cove Lumber Co.

On30 scale (1:48)  
 Plan size: 6 x 40 feet  
 Scale of plan: 1/16" = 1'-0", 24" grid  
 Numbered arrows indicate photo locations  
 Illustration by Kellie Jaeger

➕ Find more plans online in the  
 Trains.com Track Plan Database.

### The layout at a glance

**Name:** Owl Cove Lumber Co.  
**Scale:** On30 (1:48, 30" narrow gauge)  
**Size:** 6 x 40 feet  
**Prototype:** freelanced  
**Locale:** Washington's Northern Cascades  
**Era:** 1930s  
**Style:** around-the-walls  
**Mainline run:** 26 feet  
**Minimum radius:** 18"  
**Minimum turnout:** No. 4  
**Maximum grade:** 6%  
**Benchwork:** L-girder  
**Height:** 40"  
**Roadbed:** cork  
**Track:** code 83 handlaid and flextrack  
**Scenery:** hardshell  
**Backdrop:** hand-painted on walls  
**Control:** NCE Digital Command Control

blacksmith, Gunn Grocery, and boot shop have animated features such as a man welding and smoke coming from a chimney. The Dolber Yarder and Skid Road, along with the high wire yarder, all unique to logging, grace the end of the high line.

Sam's favorite bonding agents are Gorilla super glue with Insta-Set and Tightbond Quick & Thick wood glue when working on structures, depending on the materials he is dealing with. He enjoys working with these adhesives because of their quick setting time and the ability to peel back any excess, leaving no residue to compromise the paint or stain.

### Equipment and operation

The steam locomotives and rolling stock on the layout are correct for the 1930s. Motive power consists of an



② The overall view looking north from Highland Lake Trestle shows just how tall many of the trees on this lumber-centric layout are. The layout is set in Washington's Northern Cascades.



③ Bachmann Climax No. 6 is crossing Sassy Gorge on its way down with a load. The trestle is a Hunter Line kit.

outside frame 2-8-0, two Porters, a Forney, two Shays, and two Climaxes. All of the locomotives are DCC- and sound-equipped Bachmann products that are weathered to portray hard use on a logging line.

The rolling stock also reflects heavy use with varying degrees of damage applied judiciously using heat and cutting techniques, after which weathering is added with an airbrush and colored chalks. Equipment unique to the





Sam uses this assortment of dental tools for many duties on the layout, including building craftsman kits. Specialized tools like this can be found in discount dental catalogs and websites.

## Utilizing dental instruments

With a career as a dentist in general and an orthodontist in particular, I had a "leg up" on available instruments and products to make model construction less of an effort. In discount dental catalogs you can find various forceps, hand instruments, clamps, pushers, and pullers which are of much better quality than hobby-grade tools.

Crosstex makes a 6" cotton applicator with a wooden shaft. After using the bud and breaking the shaft, you have a much longer reach than a 2½" toothpick for glue or paint application. — *Sam Foster*

④ No. 7 crosses Highland Creek in the foreground while Climax No. 12 crosses Highland Trestle above, ready for another load. The around-the-walls layout has a maximum grade of 6%.

⑦ Owl Cove Lumber Co. No. 8, a Forney, pulls out of the enginehouse and through the gallows turntable to pick up a load of shingles. Sam scratchbuilt the turntable and built the enginehouse from a Sidetrack Laser kit.







Scan this QR code with your cell phone to watch this layout in action.

railroad includes an 18-foot tool car, Westside Lumber caboose, a custom railbus, and a long wood caboose.

Since logging was confined to a given area and consisted solely of log train move-

ments, operation reflects that scenario. There's no bridge traffic or special routing, and just a single passenger train. Just one or two operators equipped with NCE handheld throttles usually operate two or three trains. A typical session can last between 30 minutes and 2 hours.

The most important thing Sam learned to do while building the layout was to familiarize himself with the materials and techniques needed at the workbench before transferring them to the railroad, which minimized any surprises. If he were to start over, he says that he would have paid more attention to track aesthetics and made the railroad more accessible by keeping the reach-in distance at or under 4 feet.

Sam uses the railroad as a palette on which to artistically express his interest in not only prototype logging railroads, but also high-wire logging in the West at the end of the 19th century. He believes this endeavor has allowed him the opportunity to replicate those practices in miniature. After visiting with him and seeing the railroad in person I believe he has achieved that goal. **MR**



## Meet Sam Foster

**Sam Foster is a retired orthodontist** and lives with his wife of 45 years, J.L. Herrick, and their three cats. Aside from modeling, he has had a serious involvement with prototype historic sportscar racing and exotic car restoration.



**8** No. 9 hauls a maintenance train — complete with a steam donkey — back to the company shops. Sam used code 83 flextrack and handlaid track on the layout.

**9** This overhead view shows the detail inside Hogan's Sawmill. This is one of the many industries Sam scratchbuilt.





Maintenance-of-way equipment provides some unique modeling opportunities. Jack Burgess shares how he built a side-dump car, crane tender, and steam-powered locomotive crane for his HO scale Yosemite Valley RR.

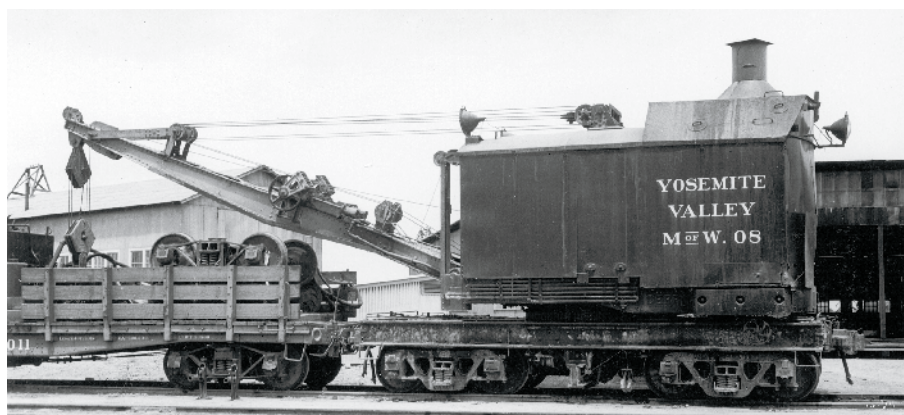


# Modeling maintenance-of- way equipment

Tips for building a crane,  
side-dump car, and  
crane tender in HO scale

**By Jack Burgess**

Photos by the author



**1 The little hook.** Yosemite Valley RR No. 08 was an 18-ton steam-powered crane built by American Hoist & Derrick. It is shown at the railroad's yard in Merced, Calif., in July 1940. Bert Ward photo





wrecking crane. It was used for general maintenance around the shops that required heavy lifting, bridge repair, and (rarely) in wreck service. The crane was self-powered, but this feature was primarily for limited movement at the work site.

My model of crane No. 08 proved to be an interesting project, since I had no prototype dimensions to work from. However, a near straight-on side view of the crane proved beneficial. Assuming the wheels on the crane were 33" in diameter, the wheelbase of the trucks would be 5'-6". Using those dimensions as a guide, I was able to draw 2-D plans for the crane.

Since the roof had curved and angled surfaces, I made a 3-D drawing and had the part printed by Shapeways <sup>2</sup>. I used the same techniques for the 27-foot-long boom. As I recall, there are more than 750 rivets on the boom.

I built the frame and body from sheet brass. Interior details include the drums, gears, steam engine (which powered the drums), steam boiler, water tank, and fuel tank <sup>3</sup>. The finished model <sup>4</sup>, next page) is about 45 scale feet long.

### Side-dump car

Yosemite Valley No. 010 was an 11¾-cubic-yard Western automatic dump car <sup>5</sup>. The car was the railroad equivalent of a dump truck. It could dump dirt, rock, and ballast on either side of the track. The dumping was controlled by air-operated hydraulic cylinders on each side of the car. Chains kept the body level during loading and train movements. The car had two air lines, one for the air brakes and the other for the hydraulic cylinders.

After the Yosemite Valley was shut down in 1944, the railroad was purchased by a company that intended to scrap the entire railroad and sell all of

**Construction of my multi-deck** HO scale Yosemite Valley RR (YV) started in 1980. I finished the model railroad 31 years later, but I didn't spend all of that time working on the layout and scratch-building structures. I also spent time on models of the YV freight cars, cabooses, and maintenance-of-way equipment (MOW) that were on the roster in 1939, the year that I model.

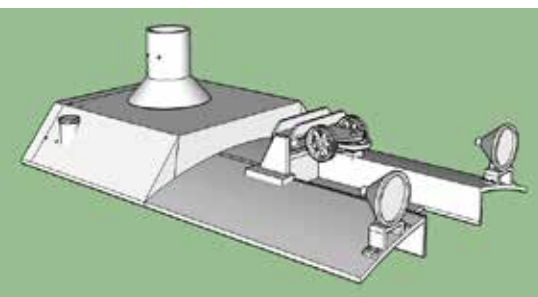
The YV's MOW roster consisted of 11 cars: a crane, cook car, side-dump car, and tool car; two flatcars and tender cars; and three bunk cars. The YV's MOW cars had a 0 in front of the road

number. This helped distinguish the work equipment from the revenue cars.

I've completed models of all 11 YV MOW cars. In this article we'll take a look at three of the more interesting pieces of equipment.

### A compact crane

Yosemite Valley RR crane No. 08 was an 18-ton, steam-powered locomotive crane built by American Hoist & Derrick <sup>1</sup>. It was equipped with a 27-foot-long boom that could be rigged with either a 1 cubic yard shovel, a pile driver, or as a



**<sup>2</sup> Digital drawing.** Since the crane's roof had curved and angled surfaces, Jack made this 3-D drawing on his computer. He then sent the file to Shapeways to have it printed.



**<sup>3</sup> Multimedia masterpiece.** Jack used sheet brass for the crane's frame and body and 3-D printed parts for the roof and boom. He added gears, drums, and other details to the interior, some of which are visible through the windows.





**4 Ready for service.** Jack's finished model of Yosemite Valley RR crane No. 08 waits outside the roundhouse for its next assignment. He used sewing thread for the rigging.



**5 The lone wolf.** Yosemite Valley No. 010, an 11¾-cubic-yard Western side-dump car, was the only example of this car type in the railroad's maintenance-of-way fleet. The car's design allowed dirt, rock, or ballast to be dumped on either side of the track. Paul Darrell photo/CSRM collection

the locomotives, cars, and even the belt-driven tools in the machine shop. The liquidation notice listed all of these assets in great detail, including the dimensions for the side-dump car **6** and the crane tender.

I started building a model of the dump car by first drawing 2-D plans based on information in the liquidation notice and prototype photos. Given the complexity of the frame, I decided to draw it in 3-D and have it printed **7**.

After the 3-D print arrived, I started adding the air lines and piping with all of the required pipe fittings. Adding the air line, which started on one side of the car and then crossed over to the other side, required four elbows. That's when I found out the air lines could also be printed in 3-D.

That discovery led me to make the frame and body as a single 3-D drawing that included the air brakes, piping, and air-operated hydraulic cylinders (**8**, next page). I drew the end levers in 2-D and photo-etched those parts.

I supplemented the 3-D printed model with stripwood and formed metal details. Then I installed archbar trucks, metal wheelsets, and metal couplers **9**.

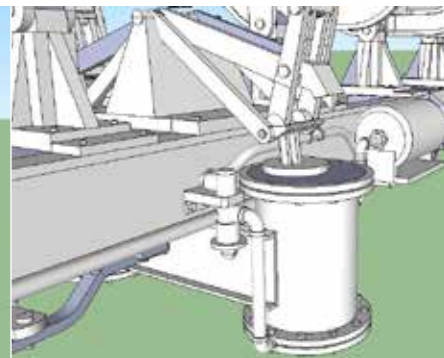
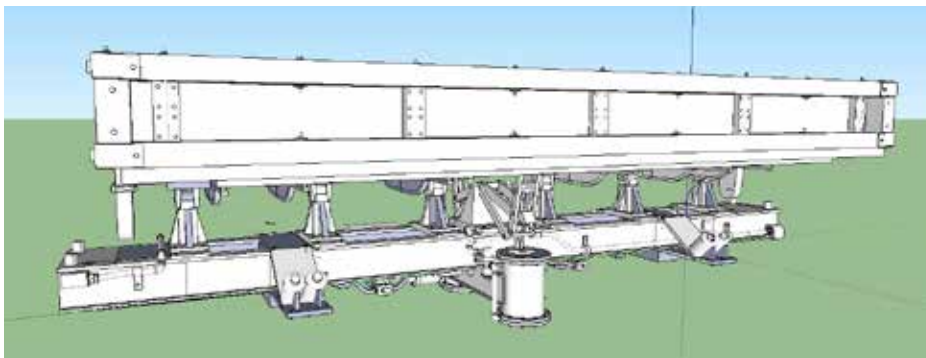
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Rated Capacity.....	60,000 Lbs.
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Cubical Capacity Level Full.....	317 Cu. Ft.
Gauge.....	4' 8½"
Length Inside.....	19' 1"
Width Inside.....	9' 1"
Depth Inside.....	22"
Length Overall.....	24' 6"
Width Overall.....	10' 6"
Height Overall.....	7' 10"
Angle of Dump.....	45 Degrees
Journals.....	4-¼"x8"
Wheels—Cast Iron.....	33"
Floors—3" Oregon Pine Covered With ¼" Plate	

**6 An unlikely information source.** A liquidation notice for the YV's assets included dimensions for the side-dump car. Information about the crane tender was also included in the notice.



**7 Take one.** Jack again turned to 3-D drawing and printing for the side-dump car. This is his first 3-D print of No. 010 with the frame and body supports but no air lines or piping.





**8 Take two.** When Jack learned the air lines could be 3-D printed, he made new renderings of the side-dump car. The couplers, air brake hoses, and trucks were omitted. The screen shot at right shows detail of one of the air-operated hydraulic cylinders and related piping.

## Fuel, water, and more

The final Yosemite Valley maintenance-of-way car we'll look at is crane tender No. 011. It was acquired sometime after 1937 and was equipped with a 3,000-gallon fuel tank for Bunker C fuel oil and a 1,680-gallon water tank for the steam-powered crane **10**. The car also served as an idler for the boom of the crane and provided space for blocking, chains and cables, and other tools that might be needed at a wreck scene.

I scratchbuilt my model using styrene, wood, and 3-D printed parts **11**. After painting the car, I decaled and weathered it. I used stripwood, stained prior to installation, for the car's deck.

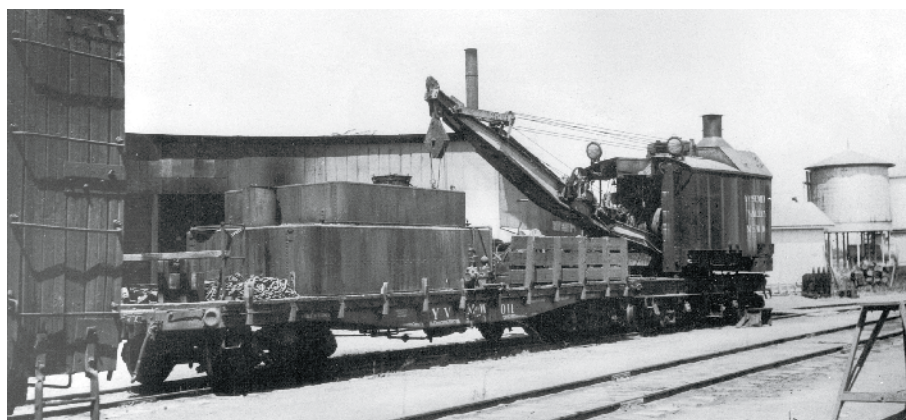
Prototype images provided a few clues as to what was stored on the car's deck, so I added track tools and jacks, a 55-gallon drum, a short ladder, and some ties.

If you're looking to add visually interesting models to your layout, consider maintenance-of-way equipment. The cars look great as part of a yard scene, on a siding, or in a train. And if you're not quite ready for scratchbuilding, ready-to-run MOW models are available from several manufacturers. These off-the-shelf cars could serve as the starting point for a kitbashing or detailing project. **MR**

*Jack Burgess lives in Newark, Calif., and is a frequent contributor to the pages of Model Railroader magazine and its special issues. His article "Prototype operations on the Yosemite Valley" appeared in the September 2023 issue. Subscribers to our Trains.com website can see exclusive video of Jack's HO scale Yosemite Valley RR in action.*



**9 On the rails.** Though much of the model was 3-D printed, Jack added stripwood platforms, metal grab irons and stirrup steps, and chains, among other details, to the side-dump car. He equipped the model with archbar trucks, metal wheelsets, and knuckle couplers.



**10 A multi-purpose car.** Yosemite Valley crane tender No. 011 is shown with steam-powered crane No. 08 at Merced, Calif. The tender had fuel and water tanks for the crane. Roy Graves photo/Bancroft Library collection



**11 The finished car.** Jack painted the flatcar black and added decals to the sides. He used stained stripwood for the car's deck.



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# MODEL RAILROADER HALL OF FAME

These three Kalmbach employees helped  
enrich our hobby in different ways

## NOMINEES

By Cody Grivno

**T**his month's nominees for the Model Railroader Hall of Fame are all part of the Kalmbach Media (formerly Kalmbach Publishing Co.) family tree. Though all three men worked here, each impacted model railroading in a different way.

Jim Hediger shared his modeling tips and techniques with readers for more than 40 years. Michael Stephens, a second-generation Kalmbach employee, was instrumental in the

formation of the World's Greatest Hobby campaign and later held high-ranking positions with Athearn Trains and Wm. K. Walther's Inc. George Drury, a 25-year veteran of Kalmbach, created our company's railroad library that many hobby manufacturers still use today to research locomotives, freight cars, and structures.



Scan this QR code  
with your cell phone  
to vote for this  
month's nominees.

### James D. Hediger (1942-2024)

**With 43 years of service,** James D. (Jim) Hediger was one of the longest tenured members of the *Model Railroader* staff. During his time with the magazine he wrote more than 750 columns, product reviews, and stories for the magazine.



James D. Hediger

After graduating from Wayne State University in Detroit with a bachelor's degree in industrial education, Jim taught machine shop, printing, and wood shop in the Dearborn (Mich.) School District. He later earned a master's degree in industrial education from Eastern Michigan University.

Jim joined the MR staff in the summer of 1972. After moving to Wisconsin he began work on his HO scale Ohio Southern layout. The original, single-deck version appeared in the July 1978 MR. When Jim and his family moved to Sussex, Wis., he started work on the pioneering double-deck version of the OS. The model railroad is recognized as one of the first, if not the first, practical double-deck model railroads ever built.

Jim retired from MR in August 2015. He passed away on February 9, 2024, at the age of 81.

### Michael R. Stephens (1953-2013)

**Trains were a part** of Michael R. Stephens' life from a young age. His father, Hugh Stephens, was Vice President — Sales for Kalmbach Publishing Co. in the 1950s and early 1960s. Michael would later go on to work for Amro Ltd., his father's company, which imported model trains from European manufacturers.



Michael R. Stephens

Michael was a second-generation Kalmbach employee. In the 1970s he was on the staff of *Airliners International*. He left the company for a time to pursue careers in advertising and marketing, returning in 1998 as Vice President — Marketing. Michael played a key role in the development of the World's Greatest Hobby campaign during his second stint with Kalmbach.

In 2007 Michael became President of Athearn Trains. Three years later, he was named Vice President of Proprietary Products at Wm. K. Walther's Inc. in Milwaukee. During his tenure at Walther's, he helped rebrand the company's product lines and develop a variety of products.

Michael died on April 9, 2013 after a lengthy illness. He was 59 years old.

### George H. Drury (1940-2013)

**Model Railroader readers most likely** remember George Drury for his articles on modeling passenger cars and stations. But during his 25 years with Kalmbach, George made many valuable contributions to both the prototype and model railroad communities.



George H. Drury

George joined Kalmbach as a copy editor in the Books Department in 1972. From 1975 to 1992 he served as company librarian. In that role, he took the company's loosely organized collection of books, photos, and reference materials and created one of the nation's top railroad libraries.

When George returned to the Books Department in 1992, he compiled the *Guide to North American Steam Locomotives*, *The Historical Guide to North American Railroads*, *The Train-Watcher's Guide to North American Railroads*, and *Guide to Tourist Railroads and Museums*.

Following his retirement in 1997, George became a freelance author and columnist. He also led rail tours.

George passed away on June 21, 2013. He was 73 years old. **MR**





This HO scale Fowler 36-foot boxcar, a Westerfield Models product, is one of many resin freight car kits David Steer has painted and lettered. Learn his tips and techniques for working on multiple cars at one time.

# Painting and lettering resin freight cars

These tips can be adapted for plastic models, too

**By David Steer** • Photos by the author

**Building resin freight car kits**, especially those based on prototypes from 1900 to 1940, is a facet of the hobby I really enjoy. However, instead of working on one car at a time, I like to assemble several kits so they can be painted together **1** (opposite page). This approach cuts down on the amount of airbrush cleaning and reassembly I need to do.

Painting and lettering multiple cars may sound tricky, but I've come up with tools and techniques to make the process go smoothly. Though the models I'm working on are resin, you can

easily use these techniques on plastic models.

## Get a handle on it

I recently made jigs to hold each car using punched steel strapping, wood blocks, and screws **2**.

I bent the strapping into a U shape and secured it to the block with screws. Then I bent the ends of the strapping horizontally and trimmed around one of the smaller holes to match the size of the pad on the car's truck bolster. I attach the car to the strapping with the truck screws and washers.

Note that the weight and area of the block must be adequate enough so it won't tip over when the car is mounted on the bracket. The height of the bracket must be sufficient so the airbrush can be pointed at the underframe and a screwdriver can reach the mounting screws.

When applying the paint, I hold the bracket with one gloved hand and turn it at various angles so the paint can be directed to all parts of the model. It usually takes two passes from all angles to get complete coverage.

After the painting is finished, I place the cars — still

on the brackets — in a drying cupboard. The enclosed space keeps dust off the models as the paint dries. I leave the cars in the cupboard at least overnight, if not longer.

If the car requires multiple colors, I mask the model and apply the second (and subsequent) colors with an airbrush. Most freight cars between 1900 and 1940 had wood components on the bottom, particularly the floorboards. These boards were typically unpainted, so I paint them a khaki-gray color to simulate weathered wood.

Similarly, the wood running boards on cars from this



period were unpainted to prevent them from becoming slippery in rain or snow. I apply a coarse coat of khaki-gray here.

The brake components (levers and piping) are painted black or the body color. This is a bit tedious, but it adds authenticity to the finished models.

### What's on the workbench?

Once the paint has fully dried, I apply the lettering. It's best to apply waterslide decals on a glossy surface. If I'm lettering the car with dry transfers, a flat finish works better.

My workbench setup is shown in ③. Water in a flat dish and decal setting solution are to my left, where they're less likely to be disturbed. I also keep small brushes at the ready. One is for applying wet water (water with a few drops of dish soap added). The other is for brushing on setting solution.

I store any decals I plan to use in a plastic bag at the back of the bench, where they're less likely to be damaged by spilled liquids.

I use various tweezers and dividers to apply the decals and check alignment, respectively. Though not shown, I keep prototype photos nearby to assist with placement of the reporting marks, road numbers, data, and, if applicable, heralds and slogans.

Notice, too, that there are wheelsets on the bench. I paint them a rusty color while waiting for the decal setting solution to evaporate. Multi-tasking helps keep each freight car project moving.

### Applying the lettering

I apply the lettering per the manufacturer's instructions. For waterslide decals, I add a fingertip's worth of detergent to the soaking water. I find this helps prevent air bubbles under the decal film. I typically letter one car side in an evening work

session, let it dry, and do the other side and the ends the next evening.

I trim the decals as close as possible to the lettering to remove excess film, but still leaving it large enough to handle. Then I soak each decal in the wet water. While the decal is soaking, I use a paintbrush to apply wet water to the model where the decal will be put on.

Keep an eye on the decals while they're soaking. If soaked too long, the decal may tangle into an irrecoverable mess. If they crack or split, do your best to reassemble the pieces. Apply liquid decal film or a clear coat to the pieces that haven't been soaked to prevent them from doing the same.

Once the decals slide freely off the backing paper, I place them into the previously wetted area. Then I check the alignment and confirm the lettering is straight.

After I'm satisfied with the alignment, I apply setting solution to the decals to help them conform to the model. Make sure the solution flows under the decal. As it begins to dry, I make any final alignment adjustments. I don't leave the workshop until the decals have settled properly.

When all of the lettering is applied and the setting solution has thoroughly dried, I spray the car with a roughly 50:50 mixture of clear gloss and clear flat finish. This blends the decal film into the model and prevents finger oils and abrasion from damaging the painted surface and lettering. I wrap up each freight car with some weathering.

Hopefully you can put some or all of these painting and lettering techniques to use on your next freight car project. [MR](#)

*David Steer lives in Nepean, Ont., Canada. His article "A South Park Cooke Mogul in Sn3" appeared in the December 1998 Model Railroader.*



① **Ready for paint.** Here is a string of assembled resin freight cars ready for the spray booth. David prefers painting and lettering multiple cars at a time.



② **A simple solution.** David used punched steel strapping, a wood block, and screws to make this painting jig for his resin freight cars. The green masking tape is covering the couplers.



③ **At the bench.** Though David's workbench looks busy, there's a method to it. The water, setting solution, and brushes are at left. Unused decals are stowed in a plastic bag toward the back. The tweezers and dividers are used for applying and aligning the lettering.



# Giving hand signals

The sandhouse gang has been around forever, it seems. It probably takes its name because sanding facilities had heaters to keep sand dry, making a sandhouse as cozy a place to gather in chilly weather as a seat in baseball's hot stove league.

Hand signals might well be a topic of discussion. Rulebooks contain the most common. For example, a highball, or proceed, has the hand raised and lowered vertically. Back up has the hand make a circular motion at half arm's length. Stop has the hand swing horizontally at a right angle to the track, as if closing a gate.

Many variations occur, of course. Holding a hand high and waving satisfies proceed. Waving it in a circular motion indicates back up. These are handy when an engineer and conductor are near one another, and subtle motions are plainly visible.

On the other hand, a conductor signaling from the back of the train needs the full motion. Night or low visibility often make a lit fusee better than a lantern or lamp, swung high in the air to give a highball.

Variations exist. Waving the hand with the palm facing the engine says, "go away from me." The same motion with the palm facing the body says, "come to me." Bumping fists together asks for the engineer to bunch cars so they can be uncoupled. Pulling hands apart while grasping one's fingers in similar manner to couplers asks to stretch the joint to test that a good coupling has been made. I bet our professional readers can describe many such local forms. The only requirement is that all crew members have a mutual



A classic J. Parker Lamb photo captured a hotbox signal and appeared in *Trains*, inspiring Craig Wilson to re-create the scene on Jack Ozanich's Atlantic Great Eastern. Craig Wilson photo

understanding of a signal's meaning. To the point, a Michael Sawyer post on *Trains.com* this past April described how a Burlington Northern engineer mistook the fusee he tossed for an emergency stop.

**Radio reduced dependence** on hand signals, but they're still useful when several crews work nearby one another, as in a yard. A familiar cartoon hangs on many crew room walls. It has a conductor grumbling: "I'm looking right at you, and you talk to me on the radio instead of using hand signs." I'll side with him. We humans process visual info faster than audible, especially when static or careless use of a push-to-talk button garble transmissions. However, a quick PTT click-click can draw an engineer's attention to signals. When

using radio is necessary, it's important to listen before transmitting to make sure the channel is clear. "Stepping on" another crew, interfering with their transmissions, compromises safety if they're counting down to a coupling.

I remember a sandhouse session that took place in our dining room long ago. A tableful listened attentively as a long-service conductor fielded questions about hand signals. Drawing his hand across his neck, raising two fingers, and patting his head indicated cutting two cars off the head end. Fingers then added which track to place the cars. I wish I had video of all the examples he gave, which he threw faster than American Sign Language.

**Two other examples** come to mind. One is a washout, urgently circling a hand at arm's length.

Rulebooks declare this "train has parted" but it's come to mean "emergency." I once washed out an engineer who wasn't watching my signals. Seeing what a 200-ton battering ram does to a bumping block makes a strong impression. There's a lesson for any hand signal: both persons must have eye contact.

The photo shows the second. Crews were always alert to hotboxes before wayside detectors became common. Journals packed with oil and cotton waste could burst into flames if the axle overheated. Even if smoke wasn't visible, the fire burned with a strong odor that lingered. An employee inspecting the train as it rolled by could alert the caboose crew of trouble by holding the nose and pointing at passing journals.

Passing hand signals is another way to bring prototype practice to an operating session. But keep it to the simple proceed, back up, and stop stuff. Holding a nose and pointing would be rude, no matter how demanding the circumstances. **MR**



SEEING WHAT A 200-TON BATTERING RAM DOES TO A BUMPING BLOCK MAKES A STRONG IMPRESSION.  
— JERRY

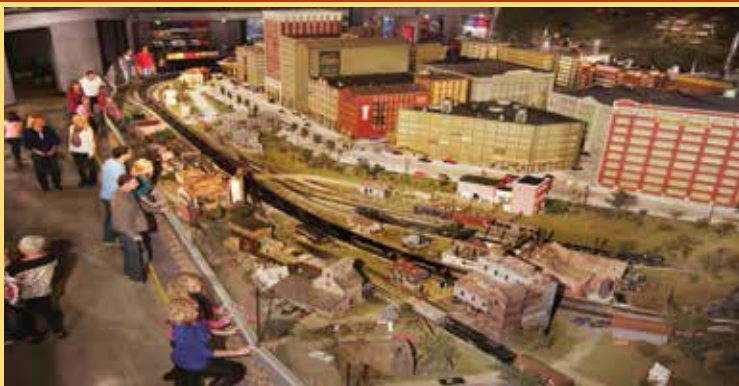


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**New Hope & Ivyland (NH&I)**

General Electric U30B No. 401 pulls two covered hoppers northbound over Neshaminy Creek at Rushland, Pa. The action takes place on Wil Harkins' HO scale NH&I layout. The U30B is an Atlas model painted and lettered for McHugh Brothers, the contracted operator of the line. The hoppers are custom-decorated Athearn blue box models. The trestle is made of Chooch piers and Micro Engineering plate girders.





**Milwaukee Road Alco RSD-5** No. 571 leads the North End Patrol into Kwahamot, Wis., on its way back to Wausau from Minocqua/Woodruff. It will pick up the boxcar spotted at the freight house before continuing on. Grant L. Graeber of Rockton, Ill., photographed the scene on his freelanced HO scale MT&W ("Miserable, Tired & Weary"). The locomotive is a custom-painted brass Perfect Scale Models shell and frame; rebuilt with an Atlas motor, gears, and trucks; and equipped with a Soundtraxx Tsunami2 DCC/sound decoder. The backdrop is from Trackside Scenery of Strasburg, Va.

## Send us your photos

**Trackside Photos** is a showcase for the work of *Model Railroader* readers. Send your photos (digital images 5 megapixels or larger) to: *Model Railroader*, Trackside Photos, P.O. Box 1612, Waukesha, WI 53187-1612. You can also email Senior Associate Editor Steven Otte at [steven.otte@firecrown.com](mailto:steven.otte@firecrown.com) to submit photos or request our photo guidelines.





**Westcott may not be a large town,** but it's big enough to warrant passenger service, in the form of the Bona Vista RR's rickety old gas-electric. A young railfan strains for a view as mom tries to coerce him into the barber shop. The doodlebug is a kitbash from a February 1979 *Model Railroader* article by Art Curren. You can watch Trains.com Video Contributing Editor Gerry Leone build this HO scale scene — and the whole town — on his "Spaces to Places" video series. Scan the QR code at right.



Scan this QR code to watch Gerry Leone's "Spaces to Places" series on Trains.com.



**A pair of Erie Lackawanna** diesels pull a train over the famous Starrucca Viaduct near Susquehanna, Pa. Henrik Åkesson of Malmö, Sweden, photographed the scene on his N scale model railroad, which is set in the early 1970s. Henrik kitbashed the viaduct from several Atlas bridges. The locomotives are from InterMountain Railway and Atlas.





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Send your submissions to: *Model Railroader* — Classifieds, P.O. Box 1612 Waukesha, WI 53187-1612. Toll-free (888) 558-1544 Ext. 551. E-mail: [classads@firecrown.com](mailto:classads@firecrown.com)  
**All ads must be prepaid and pertain to the subject of model railroading.**

### Schedule of Events

**AR, CONWAY:** Central Arkansas Train & Hobby Show. Conway Expo Center, 2505 E. Oak Street, Conway, AR 72032. August 24-25, 9:00am - 4:00pm. Vendors, Layouts, Contests. Admission \$5.00, 12 and under free. Contact RAIL & SPRUE Hobbies, 1200 John Harden Drive, Jacksonville, AR 72076. 501-982-6836, or [railandsprue@aol.com](mailto:railandsprue@aol.com)

**CA, LONG BEACH:** Join us by the Pacific Ocean in Long Beach, California for the SurfLiner 2024 NMRA National Convention, August 4 - 11, 2024! Clinics, Layouts, Prototype Tours, General Interest Tours, and more. Bring the family to beautiful Southern California! Register today! [www.SurfLiner2024.org](http://www.SurfLiner2024.org)

**FL, PINELLAS PARK:** Regal Railways presents Toy Trains & Hobby Show. Lopez Inc. Hall, 7177 58th St. North, Pinellas Park, FL 33781. Saturday, August 17, 2024. 9:00am-2:00pm. Admission: \$6.00 adults, children under 12 free. Vendors and model train layout. Lunch available. Contact: Joe at 727-244-1341 or visit: [www.regalrailways.com](http://www.regalrailways.com) for more information.

**IA, ELKADER:** 12th Annual Elkader Model Train Show-Swap Meet. Sunday, August 18, 2024, 10:00am-3:30pm. Johnson's Reception Hall, 910 High Street. Adults \$5, children 6-12 \$2, under 5 FREE. Free parking, lunch stand available. Information: Larry Lerch, 563-880-2066 or 563-245-3345

**ID, CALDWELL:** Southwest Idaho Train Show. O'Conner Fieldhouse, 2207 Blaine St., Caldwell, ID. September 21-22, 2024. Saturday, 10AM-7PM, Sunday, 10AM-5PM. Admission \$5.00, \$6.00 w/card. Under 12 free w/adult. Clinics, operating layouts, exhibits, rides, vendors, all scales. Concessions available & free parking. Sponsored by Caldwell Model Railroad Club & Historical Society. Contact Dave 208-936-5730 or visit [www.cmrcs.org](http://www.cmrcs.org)

**IN, INDIANAPOLIS:** Central Indiana Division/NMRA announces the Franklin Train Show. Johnson County Fairgrounds, 250 Fairground St., Franklin, IN 46131. August 3-4, 2024. Saturday 10am-4pm, Sunday 10am-3pm. Admission: \$7/person, 16 and younger free w/adult. NMRA members (show membership card) \$5/person. Demos, Displays, Operating Layouts, Door Prizes, Free Parking, Food available. Info/table rental: Michael Roderick, 317-833-3556, [FranklinTrainShow@gmail.com](mailto:FranklinTrainShow@gmail.com) or [www.cidnmra.org](http://www.cidnmra.org)

**OH, VAN WERT:** Van Wert Railroad Heritage Weekend Model Railroad Show & Swap. Van Wert County Historical Society, Van Wert County Fairgrounds, 1055 S. Washington St., Van Wert, OH 45891. July 27-28, 2024. Saturday 10am-4pm & Sunday 10am-3pm. Adults \$6.00. Scouts in Uniform and Children 12 & under: FREE. Info: Chuck White, [railcarman@frontier.com](mailto:railcarman@frontier.com), 260-760-1666, [www.vwrrh.com](http://www.vwrrh.com)

**TX, AUSTIN:** Austin Train Show. Over 25,000 sq.ft. of railroading fun for the whole family! Palmer Events Center, 900 Barton Springs Road, Austin, TX. August 24-25, 2024. Saturday 10am-5pm, Sunday 10am-4pm. Admission: \$8 online, \$10 at the door (includes both days), 12 and under FREE w/adult. Kids train ride, vendors, model/Lego railroads, tour, clinics. Visit: [austintrainshow.org](http://austintrainshow.org)

**WI, LA CROSSE:** Rail Fair, Copeland Park, Rose & Clinton Streets. Saturday, July 13, 2024, 10am-4pm. Admission \$5.00, under 12 free with adult. Railroad Show-Flea Market-Swap Meet. BUY/SELL/TRADE. Model, Toy & Antique Trains & Memorabilia, Railroad Exhibits & Displays. Information: 4000 Foundation, PO Box 3411, La Crosse, WI 54602, 608-781-9383 or 608-498-9522. [www.4000foundation.org](http://www.4000foundation.org)

*All listed events were confirmed as active at the time of press. Please contact event sponsor for current status of the event.*

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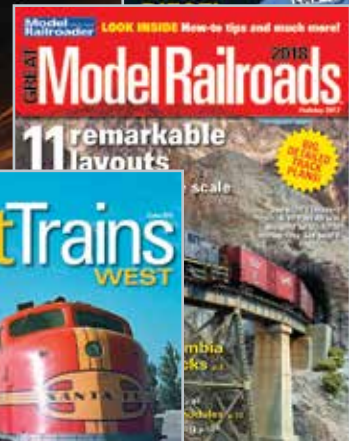
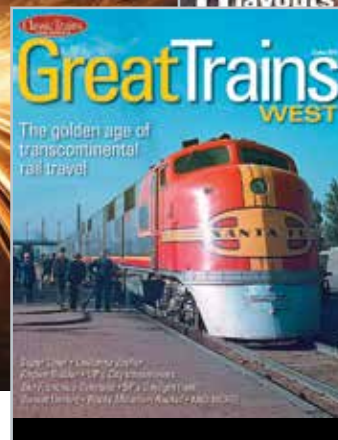
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# What a diverse bunch we are!



Then and now: On Mont Switzer's 1960s model railroad is a Mack Model B in company blue paint lettered for Switzer Tank Lines (top). Today's machinery is more exotic, as the bottom photo, taken at Texas Motor Speedway, makes clear. Top: Mont Switzer photo; bottom: Kenny Burk photo

**There's no reason for me** to be amazed at the diversity of professions we model railroaders engage in, but I am. It's easy to rub elbows with the guy or gal who flies your airliner, checks your pulse, fixes your teeth, plays in your favorite band, or — in the case of Mont Switzer — runs the company that supplies the fuel for each and every INDYCAR race in the U.S. and Canada.

Mont is CEO of Switzer Tank Lines, an HO scale modeler, and author of many how-to articles you've seen in these pages. I guess I marvel over his myriad accomplishments more than most because I've known him since he was, like me, just another Indiana kid who loved trains, especially the Monon. And the Nickel Plate wasn't too far down his list.

**Mont is a no-nonsense guy**, as you would expect of someone whose job it is to ensure

that his trucks always, without fail, arrive at the racetrack with the fuel needed for the next race in a timely and safe manner. That's an awesome responsibility not only to the race promoters, race-team owners, and race fans, but also to the general public who drive alongside a Switzer Tank Lines truck loaded with racing fuel. Employees like Operations Manager Zach Johnson and Senior Driver Kenny Burk ensure that STL upholds its end of the bargain every time.

When I was writing my new book, *Guide to Prairie Railroad* (available now), I wanted to feature a basement-sized yet relatively simple model railroad — no multiple decks, no spiral helix, etc. Mont's Monon immediately came to mind, as he had commissioned clear-thinking layout designer and builder Lance Mindheim to translate his ideas into 3-D form. Lance got the dimensions and

information and before long showed up at the Switzers' Hoosier home in a U-Haul truck filled with layout sections. Then the fun began.

"As you know," Lance recalls, "Mont is a professional trucker, the type who can back a 50-foot trailer down a narrow alley in a few seconds with just a few inches to spare on each side. Suffice it to say, I'm not a professional trucker, and backing up isn't one of my strong points. I pull up in the street in front of his drive, which I'd describe as long and narrow. Bordering it is his pristine, golf-course-like lawn.

"Mont meets me out front and asks if he wants

me to have him back the truck up the long drive. No, I tell him, I've got this. Two stubborn Hoosiers (ex-Hoosier in my case) are interacting here. He tried to hide his anxiety about me doing the backing move, but didn't do a very good job of it. So off I go. After only 10 yards or so, the truck is totally off center and inches from that golf course of a lawn. He's giving me directions, which aren't helping. I'm pretty sure beads of sweat are showing on his forehead as he envisions tire ruts in his lawn.

"I pull forward and try again. Same result, just on the other side. At this point Mont snaps: 'Stop! Get out of the truck!'

"I did, and he backed it up the driveway straight as an arrow at about 30 mph. We've been friends since."

**Mont has a way** of conveying what he wants done very clearly, something any successful CEO needs to be able to do. I admire professionals who really know what they're doing. And I am certain that within seconds of the truck

coming to a stop, Mont had a big grin on his face; it was now time for Lance, the layout designer and builder, to be the professional.

Our hobby is filled to the brim with such pros — people we'd never have the opportunity to meet, let alone befriend, without the common bond of our mutual interest in trains large and small. What a wonderful past-time! **MR**



**I MARVEL OVER MONT'S MYRIAD ACCOMPLISHMENTS MORE THAN MOST BECAUSE I'VE KNOWN HIM SINCE HE WAS, LIKE ME, JUST ANOTHER INDIANA KID WHO LOVED TRAINS. — TONY**





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